

EDUCATION, EMPLOYMENT AND EARNINGS :
A Study on the Role of Education in
Equalisation of Economic Opportunity

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THESIS

Submitted to Kumaun University

FOR THE DEGREE OF
Doctor of Philosophy in Economics

By

GOVIND SINGH MEHTA

Under the Supervision of

Dr. T. S. PAPOLA

Professor

Giri Institute of Development Studies, Lucknow.

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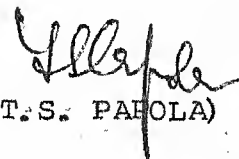
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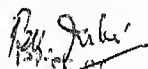
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This is to certify that the enclosed Thesis entitled "Education, Employment and Earnings : A Study on the Role of Education in Equalisation of Economic Opportunity", embodies the work of the candidate, Shri Govind Singh Mehta himself and that he work under my supervision to complete his study for the period required under Ordinance 6. It is further certified that he has put in more than 200 days of attendance at the Giri Institute of Development Studies, a recognised centre for Ph.D. of the University, to work under my supervision.

May 30, 1988


(T.S. PAROLA)

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The Giri Institute of Development Studies
LUCKNOW.

PREFACE

Imparting education among human resources implies improvements in cognitive ability, technical skills and knowledge, productive efficiency and mobility in different occupations and geographical areas and thus enhances productivity and, as a consequence, raises earnings and income levels of individuals and also brings about increasing contribution in economic development. Beside the general contribution that education makes to economic development, it is also considered to be a potent instrument to bring about equality of economic opportunity. So, it is plausible that education can compensate for the lack of material assets, so as to bring the economic conditions of the people who own little or no assets, and thus influence a degree of economic equality, despite inequalities in the ownership of material resources.

While education can be an instrument for qualitative opportunities, it is equally possible that any given level of educational opportunity may increase inequality despite the differentials in socio-economic background and several other variables, among people. This is the central theme that the present study tries to examine. Beside this the study examines, the extent to which education could be an effective instrument for reducing the existing imbalances in the pattern of income distribution between the different groups of population viz., rural-urban, male-female, general castes - SC/ST, and different income groups. The findings, it is hoped, should prove of interest not only to academicians but to policy makers as well.

I am deeply indebted to Prof. T.S. Papola, my research supervisor, without whose expert advice, wise council and constant inspiration it would not have been possible for me to undertake and complete this work.

I am also extremely thankful to Mr. A. Joshi, Dr. P.N. Pande and Mr. D.K. Bajpai who were always willing to discuss my problems and give valuable suggestions. I also thank Indian Council of Social Science Research, New Delhi for providing me contingency grant for the study.

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May 30, 1988


(G.S. MEHTA)

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Chapter I

INTRODUCTION : EDUCATION AND ECONOMIC DEVELOPMENT

It is well recognised that education plays an important role in economic development through imparting cognitive abilities, technical skills and knowledge, increasing productive efficiency and enhancing mobility of human resources. Education enhances productivity of individual workers and, as a consequence, raises their earnings and income levels. Changes and improvements in the quality of life that are brought about by education constitute an important though often intangible source of economic development. The economic development depends ultimately upon to the quality of human resources and, more specifically on the creation of labour-force equipped with necessary technical skill to develop and use technology and an attitude conducive to the acceptance and promotion of economic and technical change.¹ And it is education that leads to the developments of these qualities of human resources.

¹ Johnson, H.G., Towards a Generalised Capital Accumulation Approach to Economic Development in Blaug, Mark (ed.), Economics of Education, The English Language Book, Penguin Books, 1968, p.35.

While the importance of education in economic development can hardly be over stated, it is an extremely difficult task to measure its specific contribution. There are several other factors which go to determine the level of production and productivity, and education contributes to the process of production, through labour in which it is embodied. Thus there are three different groups of factors - physical, human labour and education which interacting with each other produce output, and thus influence the level of economic development. Therefore, even though it is accepted that education by enhancing cognitive abilities, technical skill and knowledge, plays a major role in accelerating economic development, it does so only in interaction and interdependence with other factors.²

²Haq, M.S., Education, Manpower and Development in South and South East Asia, Sterling Publishers, 1976, p.53.

There are several studies e.g., Debeauvais,³ Denison,⁴ Goel,⁵ Vaizey⁶ which revealed that the faster economic growth has mainly been accounted for by advancements in technology, higher investment in the improvements of the quality of human resources and increasing their productive efficiency. The route through which education makes its contribution to economic growth is through increase in productivity of labour and other resources. Changes in productivity is the result of the technological advancement, through systematic application of scientific and other knowledge, improvements in skills and knowledge for specialised tasks, and changes in values and attitudes.

³Debeauvais, M., The Contribution of Economics of Education to Aid Policies, A Critical Comments, Champion, F. (ed.) Education and Development Reconsider, The Bellagio Conference Papers, Praeger Publisher, New York, 1974, p.39.

⁴Denison, E.F., 'Why Growth Rates Differs', Brookings Institute, Washington DC, 1967.

⁵Goel, S.C., Education and Economic Growth, Macmillan & Co., 1975.

⁶Vaizey, John, Investment in Human Capital, American Economic Review, 1961, pp.2-3.

Thus the educated workforce is observed to have relatively higher productivity than those without education. Debeauvals⁷ in his study finds the value added to the educated to be more than double of the uneducated workers. Similarly, Bowen⁸ finds that the skilled workers generate relatively higher amount of income as compared to unskilled workers in different economic sectors. Several other studies have also noted the significance of the relationship between education and economic growth in different countries. Comparative studies like those by Bowmen⁹ and Anderson⁹, and Harbison and Myers¹⁰ correlated certain educational indices such as literacy rates, enrolment rates, and other measures of educational development with the GNP

⁷Debeauvals, M., op. cit., 1974, p.38.

⁸Bowen, B.G., Assessing the Economic Contribution of Education, An Appraisal of Alternative Approaches, Higher Education in Blaug, M. (ed.) Economics of Education Vol.I, The English School Language Book Society, Penguin Books, 1964, p.67.

⁹Bowmen M.J. and Anderson, C.A., Concerning the Role of Education in Development Old Societies and New States, Free Press, 1963.

¹⁰Harbison, F. and Myers C.A., Education, Manpower and Economic Growth, McGraw Hill, New York, 1964.

growth rates of different countries, and found strong relationship between the two.

Another approach to the problem of measurement of contribution of education and advancement in knowledge has been in terms of identifying the part of growth unexplained by the conventional factors of production as 'residual'. This approach aims to cover all the contribution of education to production. Of the total increase in output over a given period of time, only a part is found to be explained by increase in measurable inputs, capital and labour, and the residual is attributable to the unspecified inputs. This residual is variously designated as a function of technological change in production¹¹ and as productivity change as a result of transmission of existing knowledge.¹²

¹¹ Solow, R.M., Technical Change and Aggregate Production Function, Review of Economics and Statistics, August, 1957.

¹² Denison, E.F., Education, Economic Growth and Gaps in Information, Journal of Political Economy 70, Suppl., October 1962, p.127.

Several studies have been undertaken to separate out the contribution of education and other technological knowledge from the contribution of factors (capital and labour) in the production function. For the measurement^{of} the residual contribution in economic growth the studies mostly carried out related to U.S. economy mostly using Cobb-Douglas production function. The study by Schultz¹³ is based on an empirical input-output series of formal education during the period of 1900 to 1957. He used the investment data in schooling of labour-force and computed rates of return earned on this investment, then attempted the contribution of education to economic growth. He finds that 21 per cent of economic growth in United States between 1900 to 1957 was contributed by education. The study by Solow¹⁴ using linear, homogeneous production function and assuming that technical change

¹³ Schultz, T.W., Investment in Human Capital, American Economic Review, 51, 1961, pp.46-88.

¹⁴ Solow, R.M., op. cit., 1957, pp.312-320.

is neutral, estimated the residual to be 87.50 per cent of the increase in output per man hour in the United States between 1909 and 1949. Denison's¹⁵ study constitutes a third variant of the residual factor approach. He expands the Cobb-Douglas production functions into following forms.

$$\frac{\Delta Q}{\Delta Q} = \frac{T}{T} + aI + (I+a) \cdot K - (I-a) \cdot K \Delta a + a \frac{\Delta L}{L} + (I+a) \cdot \frac{\Delta K}{K}$$

ΔQ = rate of increase in output

$\Delta T/T$ = new residual factor

K = rate of increase in capital

a = average age of capital

I = rate of increase in labour quality

Further he broke down I into following components:

I_E = improvements due to change in educational achievements

I_A = labour quality change due to age, sex, composition changes in the workforce

I_W = labour quality changes due to falling average work week.

¹⁵ Denison, E.F., op. cit., 1962 and Denison E.F. Measuring the Contribution of Education (and the Residual) to Economic Growth; in Study Group in Economics of Education; The Residual Factor and Economic Growth (OECD), Paris, 1964.

Applying this method he estimates that of the 1.4 per cent growth of output per annum in the United States during 1929 to 1960, 70 per cent was estimated to have been contributed by the change in educational achievements of labourforce.

It is also observed that mobility of labour-force contributes positively to economic development.¹⁶ And education accelerates the process of labour mobility among different geographical areas and different occupations.¹⁷ Since mobility generally takes place from areas of limited opportunities to those which can utilise labour more productively and occupational mobility is generally upward, education helps in more optimal utilisation of resources in-so-far-as it facilitates higher mobility. The propensity of migration has been noticed significantly related with the level of educational

¹⁶ Blaug Mark, Education and the Employment Problem in Developing Countries, ILO, Macmillan, 1974.

¹⁷ Jolly, R., Correlation Without Causality Between the Levels of Productivity and Education : in UNESCO (Pub.), Education on the Move, The UNESCO Press, 1975, pp.38-39.

attainment among individuals.¹⁸ Miller¹⁹ stated that individuals with higher level of education tend to migrate more frequently to different places and different wage paid ranges of occupation even when the mobility is over a larger distance as compared to the lesser educated individuals. Thus the education leads to widening of geographical labour market which opens up opportunities for an individual to contribute and earn higher incomes.

1.1 Investment in Education and Economic Growth

In view of the observed significance of the relationship between levels of education of the population and labour force, and levels and pace of economic development, expenditure on education is viewed as investment in human capital. Therefore, attempts have also been made to relate levels of economic development directly with the expenditure

¹⁸ Goel, S.C., op. cit., 1975, p.14.

¹⁹ Miller, S.M., Comparative Social Mobility, : Current Sociology, No.9, 1960.

incurred in education in different countries. Several studies notably by Blot and Debeauvais,²⁰ Debeauvais,²¹ Denison²² and Solow²³ revealed that the rates of growth in GNP of different countries during different periods of time were significantly associated with the level of investment made in education by those countries during those periods. The level of investment in education is also found significantly associated with the level of per capita income of different countries.

It is sometime's pointed out that the investment in education itself depends on the level of development and per capita income, and therefore an association observed between the two variables

²⁰ Blot D. and Debeauvais, M., Educational Expenditure in the World : Some Statistical Aspects in Financing of Education for Economic Growth, OECD, Paris, 1966.

²¹ Debeauvais, M., Comparative Study of Educational Expenditure and Its Trend in OECD Countries Since 1950, Background Study No.2, Conference on Policies on Economic Growth OECD, May 1970.

²² Denison, E.F., op. cit., 1967.

²³ Solow, R.M., op. cit., 1957.

need not necessarily mean a causal relationship with higher expenditure on education as cause, and higher per capita income, the result. The existence of a two way relationship, however, does not go to refute the basic premise of human capital theory.²⁴ For the relationship between investment in education and income levels is observed also in a dynamic analysis over time as well as in the analysis of rates of return. It is, however, seen that investment in education as a proportion of GNP, is positively related to the level of income. A more developed country spends a larger proportion of its GNP in education than a poor country. This is obviously the result of the incapacity of the poor countries to invest more in education, even though the need for it is well established.²⁵

Further at a higher level of development, a higher level of educational expenditure becomes

²⁴ Debeaurvais, M., Educational Expenditure and Economic Development : An International Comparisons, OECD, International Paper, 1972.

²⁵ Vaize John, The Economics of Education, Macmillan Studies in Economics; The Macmillan Press, 1973, p.15.

essential to meet the human resource requirements of the sustenance of further growth.²⁶ In developing countries the process of educational development is rather slow, as these countries are able to divert only a smaller proportion of their national incomes in education. The stock of educated human resources is therefore small which to a certain extent is responsible for a slow economic growth. Thus to an extent the rising investment in education is associated with the increasing demand for qualified manpower for economic development in different countries.²⁷

1.2 Demand for Education

Thus while the Western industrialised countries require educated manpower for the sustenance of their economies, the developing countries need greater investment in education for the development

²⁶ Haq, M.S., op. cit., 1976, p.74.

²⁷ Edding F and Lienel E., Policy Conference on Economic Growth and Investment in Education : International Comparison of the Correlation Enrolment Ratio and GNP, Vol.II, OECD, Paris, 1962.

of cognitive skills, technical knowledge and abilities among the human resources to achieve a faster rate of growth. Today rapid economic development is mostly possible through technological changes in the different economic activities which increase the demand for education. From the individual point of view²⁸ demand for education increases because it gives a chance to increase private incomes. Social demand for education is based on the requirements of economic development aimed to be achieved in a given period of time. It arises due to the potential demand for trained and well qualified manpower for different tasks to meet the objective of desired social and economic development.²⁹ Social demand for education also arises from the angle of equalisation in the pattern of income distribution and consumption pattern among the population in the society. The increase in educational expenditure in India in recent years is largely related, to the

²⁸ Myrdral, G., Asian Drama : An Inquiry into the Poverty of Nation, A Penguin Book Vol.III, 1968, p.1537.

²⁹ Haq, M.S., op. cit., 1976, p.2.

social pressure for more educational opportunities, particularly for the lower socio-economic groups of population. These social pressures embody not only a desire for education purely considered as education but more significantly, the economic calculations of the relationship between education and higher income. Larger expenditure is therefore, incurred in education in general as well as to upgrading the socially and economically weaker sections of the society. Thus the magnitude of social demand for education is a function both of requirements of economic growth and the welfare considerations particularly for the socio-economically disadvantaged groups of population.

Private demand for education is determined by the income levels and by individual's own perceptions and the socio-economic status of their family. Increasing demand for education arises due to the consideration that individuals with higher level of education earn relatively higher amount of incomes as compared to individuals with lower level of education or illiterates.

Further the demand for different levels of education varies by income groups. For instance the demand for higher education could be regarded limited to certain higher income groups³⁰ while the demand for lower levels of education could be demanded equally by population in all the income groups. Thus individuals with poor socio-economic groups mainly participate at lower levels of educational systems mainly because their poor socio-economic conditions do not allow them to bear the extent of higher cost involved in the utilisation of higher education.³¹

1.3 The Present Study

Due to its income raising effort, education can be instrument for bringing about economic equality or, on the contrary, accentuate the existing inequalities. This is the central theme of

³⁰ Joshi P.C. and Rao, M.R., Social and Economic Factors in Literacy and Education in Rural Areas, Economic and Political Weekly, 1964.

³¹ Nag, H., The Economic Value of the Children, Present Societies Proceedings of International Population Conference, International Union for the Scientific Study of Population, Liege, Belgium, 1977.

Belgium

the present study. The impact of education on the distribution of economic opportunities is determined by the inter-action of education with socio-economic characteristics of people at three different stages - one, access to educational facilities; two, utilisation of educational facilities; and three, employment and income benefits derived from education. The study attempts to examine the implications of education for different socio-economic groups at all these stages.

We have adopted a comparative frame of analysis in which the following groups have been identified for studying the differential impact of education :

1. Scheduled Caste/Scheduled Tribe population and general population
2. Groups with different economic status
3. Rural and urban population groups
4. Men and women

The study is based both on primary and secondary data. Secondary data with respect to pattern of availability of educational facilities and their

utilisation is collected from various government publications as well as information already collected in earlier studies and surveys. For examining the situation in the case of different groups more specifically, primary data with respect to pattern of enrolment and retention, and employment and income opportunities were collected from the identified sample of 200 households in Lucknow district. The sample was equally distributed between the rural and urban area. Of the total sample size in both the areas, the equal proportions of households were identified from the Scheduled Castes/Tribes and other general castes group. Besides, it was attempted to ensure that in each sub-sample, different income groups are well represented. In the case of urban sample the data collection from households was undertaken in three different municipal wards of Lucknow city. And, with respect to rural sample, three villages were selected taking into account the availability pattern of different levels of educational facilities and their geographical locations. Out of these three sample villages, one had

the facility of primary and middle level education within the village but the higher educational facility was available at the distance of 19 kms. In another village facility of primary education existed in the village and the middle and secondary levels of education was available within the distance of 2-3 kms. The third village was situated in a remote area, the population of this village had to cover four kms for primary and secondary education. It should also be noted that facility for higher education is available only in the urban area of Lucknow district. From all the villages an equal number of households were selected for our sample survey.

Chapter II

EDUCATION AND INCOME DISTRIBUTION

It is universally recognised that the earnings of individuals are positively related with their educational attainment. Each level of education is believed to add to the productive skills thus enhancing income potential. The higher incomes received by the more educated are thus seen as a reward for their superior productivity and a return on investment in education.

Given the general relationship between education and income levels it is plausible to hypothesise that education could be an important instrument to bring about reduction in inequality of incomes which arises basically due to uneven distribution of ownership of material resources. On the other hand, if the pattern of educational opportunity conforms with the pattern of existing asset and income distribution, the positive association between education and earnings would lead to increasing inequality with educational expansion.

The human capital theory also suggests that the education acts as an equaliser of income distribution through promoting the education among population with limited or no physical capital and other income generating resources. The higher economic status of certain groups of population is seen partly to be a function of the degree of their participation in the utilisation of educational opportunities.¹

2.1 Levels of Educational Development and Educational and Income Inequalities

Analysing the enrolment rates and the pattern of income distribution in different countries the studies of Adelman² and Chenery³ have noticed negative relationships between enrolment rates and inequality in the pattern of income distribution in

¹ Bhagwati Jagdish, Education, Class Structure and Income Equality; World Development, May, 1973.

² Adelman, Iran and Synthia Taff Morris, Economic Growth and Social Equity in Developing Countries; Stanford University, 1973.

³ Chenery Hollis and Moises Syrquin, Patterns of Development 1950-1970, New York, Oxford University Press, 1975.

almost all the countries. On the other hand, correlating the literacy rates and income distribution, Ahluwalia⁴ finds that the higher levels of literacy are associated with lower levels of income inequalities in developing as well as in developed countries. Chiswick⁵ in his study of nine countries also noticed that there is a significant relationship between income inequality and inequality in the pattern of educational attainment among population in different countries. Analysing the data related on income and educated population for eleven developed and thirty eight developing countries the study by Psacharopoulos⁶ reveals that the inequalities in the participation of population in education are positively and significantly related with the Gini Coefficient of income inequalities in different countries. Thus the greater expansion and equitable accessibility of population

⁴ Ahluwalia Montek, 'Dimensions of the Problem' in Hollis B. Chenery (ed.) Redistribution with Growth, Oxford University Press, New York, 1974. Ahluwalia Montek, Inequality, Poverty and Development, Journal of Development Economics, Vol.3, 1976.

⁵ Chiswick Barry, Earnings Inequality and Economic Development, Quarterly Journal of Economics, Feb, 1971.

⁶ Psacharopoulos, George, Inequality in Education and Employment : A Review of Key Issues with Employment on LDC's, IIEP Working Document, IIEP/S, 49/8A Paris, October, 1979.

with comparatively lower income group to educational facilities may be regarded an effective measure for mitigating the extent of inequalities in the pattern of income distribution.

Visualising education as an important instrument for improvements in socio-economic condition and bringing about a reduction in income inequalities, a great significance is attached in all countries to the expansion and development of educational facilities. Besides, subsidised educational opportunity are also provided in many cases for economically and socially disadvantaged groups of population. Inequality in income distribution itself impedes the role of education in reducing them as educational opportunities get only unequally utilised by different socio-economic groups. Studies pertaining to the relationship between socio-economic origin and utilisation of educational opportunity highlight⁷ that all income groups have registered significant

⁷ Flaud, J.E., Habey, A.H. and Martin, F.M., Social Class and Educational Opportunity, Hienomawn, London, 1957.

progress in the utilisation of education at different levels. The problem of inequality in income distribution is found to be less acute in countries with larger extent of educational facilities.⁸

The developed countries have been able to invest a significant amount of their national income on the development of educational facilities and equalise the educational opportunity among different population groups. The developing countries, on the other hand, lag behind in diverting a sufficient portion of their income to educational development and catering to the needs of equalising education among the masses.

Well developed educational facilities and their equitable distribution have resulted in higher literacy rates as well as the higher enrolments at various levels of education in developed countries.⁹

⁸Field, G.S., 'Decompassing Less Developing Countries', Oxford Economic Papers, November, 1971.

⁹Jallade, Jean Piereve, Financing Education for Income Distribution; Finance and Development; The First Generation; Economic Development and Cultural Change (Supplementary), 1977.

Educational development and equality of educational opportunity among the population of different groups and at different locations are greater in developed countries as compared to developing countries.¹⁰ The causal relationship between the income equality and education in developed countries is not, however, always clear because both the rewards and opportunities in these countries are more equitably distributed and the literacy is about universal.¹¹

Further the enrolment ratio of the children in different age groups at various levels of education are appreciably higher in developed countries than in developing countries. Reviewing the level of investment on different educational levels and the extent of enrolment ratio at each level of education in the developed and developing countries,¹² it is

¹⁰ UNESCO, Education on the Move : A Companion Volume of Learning To Be, The UNESCO Press, Vidya Mandal, 1975, pp.80-82.

¹¹ UNESCO, Ibid, 1975, p.85.

¹² UNESCO, Statistical Year Book, Paris, 1977.

noticed that there is a significant positive relationship between the level of investment and the level of enrolment ratio in developed as well as in developing countries. For instance, the developing countries have been investing a proportionately higher amount on elementary level of education and, thus have higher enrolment rates at that level, whereas in developed countries both investment and enrolment ratio are relatively of higher order at the secondary level of education.¹³

Accordingly, in developed countries both boys and girls have equal opportunities in regard to availment of educational facilities. Therefore, the educational equality at each level of education is better ensured. The enrolment ratio of girls, particularly at the primary and secondary level, outnumber the enrolment ratio of boys. On the other hand, in developing countries, these enrolment

¹³Mehta, G.S., Income Distribution and Educational Opportunity, Working Paper No. 69, Girl Institute of Development Studies, Lucknow, 1984.

percentages in respect of girls are found to be very low as compared to boys at all educational levels. Enrolment percentage among girls is only half of that of the boys and one-fifth of the percentage enrolment of the girls in developed countries (Table 2.1) at higher level of education in these countries. Thus inequalities in educational opportunities are very pronounced in developing countries. A study by Field¹⁴ reveals that in the developing countries the probability of males in the school going age group (6-23 years) being enrolled is 40 per cent higher than that of females. In the Arab States this figure is much higher at 70 per cent. Further, the probability of males being enrolled is higher than that of females by 30 per cent in the age group 6-11 years, 48 per cent in the age group 12-17 years and 84 per cent in the 18-23 years age group.

¹⁴Field, G.S., Education and Income Distribution in Developing Countries : A Review of Literature in Timothy King (ed.) Education and Income; World Bank Staff Working Paper No.402, 1980, pp.258-260.

Table 2.1 : Percentage Enrolment of Population at Different age Groups in Developing and Developed Countries

Countries	6 - 11 Years (1977)			12 - 17 Years (1977)			18 - 23 Years (1975)		
	Male	Fe- male	Total	Male	Fe- male	Total	Male	Fe- male	Total
Developing Countries	78.8	56.1	64.0	43.9	31.7	38.0	11.3	5.9	8.7
Developed Countries	94.0	94.1	94.0	86.0	87.2	86.5	32.6	27.3	30.0
Total	82.1	64.7	70.9	56.6	48.5	52.3	18.8	13.4	16.1

Source : UNESCO, Statistical Year Book, 1976, 1977 & 1978.

2.2 Differences in Educational Opportunities among Different Groups

In the case of certain socio-economic groups of population economic conditions do not allow them to get their children enrolled at desired levels of education. The poor families particularly in developing countries often manage to enrol their children at primary level of education, but once that

level of education is completed, the parents prefer to engage their children in their household economic activities to enhance their family income rather than to get them further enrolled for higher education. However, economically better off families usually get their children enrolled in better equipped educational institutions because of better affording capacity to bear the burden of educational costs. The degree of inequalities in educational opportunity is found to be much higher at higher level of education as compared to lower level.¹⁵ Field¹⁶ observed that in the ~~in~~developing countries the enrolments at all levels of education are dominated mostly by the families of higher income groups though in the lower level of education, the inter-group differences in enrolment are marginal. A study by Jencks¹⁷ revealed a high correlation between the economic status of the family and educational attainment of the

¹⁵ World Bank, Education Sector Policy Paper, World Bank, Washington D.C., New York, 1980, p.17.

¹⁶ Field, G.S., op. cit., 1980, p.259.

¹⁷ Jencks Christopher, Inequality : A Reassessment of the Effect of Family and Schooling in America, Penguin Books, 1972, p.3.

children. The differences in the educational attainment of children belonging to upper income group was found to be 55 per cent higher than those from the lower income group. According to the study by Colmen¹⁸ the differences in the socio-economic and racial variable explain 70 to 80 per cent of variations in educational opportunity at the secondary level of education and 60 to 61 per cent at the first and third level of education.¹⁹ A significant relationship between income inequality and the inequality in the educational attainment, is universally observed.²⁰

In India, great emphasis has been laid since independence, on the spread of education and improvement of educational facilities. Attempts are

¹⁸ Colmen James, S., The Evaluation on Equity of Educational Opportunity in Fredrick Mosteller and Daniel P.M. (ed.) On Equality of Educational Opportunity, Random House, New York, 1972.

¹⁹ Mayeske George, W. (et.al.), A Study of Our Nation's Schools, US Office of Education, Washington D.C., 1969.

²⁰ Chiswick Barry, Earnings, Inequality and Economic Development; Quarterly Journal of Economics, February, 1971.

Psacharopoulos George, Inequalities in Education and Employment : A Review of Key Issues with Emphasis on LDC, IIEP, Working Document IIEP/S; 49/8A, Paris, October, 1979.

vigorously made for universalisation of elementary educational facilities in remote and backward areas and by providing various financial assistances and facilities for the population in general and special education subsidies and scholarships for the deprived groups of population such as Scheduled Castes and Scheduled Tribes, in particular. Besides, the provision of the reservation of seats and relaxation in minimum attainments for admission at various educational levels and courses have also been introduced so that the deprived sections of population can receive higher education.

As a result of these efforts significant progress has certainly been made in terms of literacy and enrolment rates in general. The literacy rates between 1951 and 1981 had gone up from 16.6 to 36.23 per cent. Further, enrolment rates have increased from 42.6 to 84.50 at primary, 12.7 to 38.1 at middle, 5.3 to 20.6 at secondary and 0.8 to 4.1 at higher levels of education between 1950 and 1979. However, significant inequalities in the

availment of educational opportunities still exist between men and women, rural and urban areas and among different socio-economic groups.

2.2.1 Rural Urban Differences :

Generally the participation of population in the different levels of education has increased significantly both in rural and urban areas. However, there are extent of larger variations in the availment of different educational facilities between the population living in these two areas. The rural population mostly avail the primary level of education and those who obtain secondary and higher levels of education are small in proportion as compared to those in the urban population.²¹ Further, in the rural areas, mostly those with better socio-economic background has been observed to have mainly entered in the educational stream.²²

²¹ Government of India, 'India', Ministry of Information and Broadcasting, New Delhi, 1980.

²² Karlekar, Malvika, Education and Inequality in Beteille Andre (ed.) Equality and Inequality : Theory and Practice, Oxford University Press, New Delhi, 1983, p.222.

Studies reviewed in 'A Survey of Research in Education (1972)' have also revealed that educational opportunity is mostly open to the better strata of the society in general and to the urban population in particular.

In India, beside the high variations in the socio-economic situation of different groups of population, there are clear rural-urban dimensions in the uneven distribution of the different levels of educational facilities, by which inequality in the participation of population in different educational systems gets perpetuated between rural and urban areas. Educational institutions in urban areas are in sufficient numbers both in the public and private sectors while in the rural areas there are only government aided schools and institutions run by local bodies. Moreover, the educational institutions concentrated in rural areas are qualitatively inferior and the turn-out of the students from these institutions is also of a poor quality. The urban population have the choice of variety of institutions and can choose the institutions

according to their capacity to bear the educational costs.²³ Moreover, in urban areas the educational institutions are provided with better study facilities as compared to the rural educational institutions.²⁴ Because of the non-availability of better schools in rural areas the children are forced to attend ill equipped schools in the villages while the students of urban areas have the opportunity of attending good schools.²⁵

Further, the rural areas have the facility of only elementary and secondary levels of education; colleges are concentrated in urban areas. College level education from rural areas is possible for only a small segment of population, because a high percentage of rural population is poor and cannot afford to send their children to urban areas for higher education. Therefore, a very high percentage

²³Gore, M.S., Education and Modernisation in India, Rawat Publication, Jaipur, 1982, p.53.

²⁴Papola, T.S. and Ashraf, M.S., Problems of Non-enrolment, Non-attendance and Drop-outs in School Education, (Mimeo.), GIDS, 1982, p.13.

²⁵NCERT, Education and National Development, Report of the Education Commission of India (1964-66), 1971, p.198.

of drop-outs are noticed among rural children after the elementary level of education. The rural population which have the resources for acquiring college education are from the land-owning and relatively better off groups of society whereas the children of landless, share croppers and other poor groups suffer from a serious disadvantage.²⁶

2.2.2 Differences among General Castes and SC/ST

The utilisation of various levels of educational facilities seems to have progressed quite satisfactorily among the SC/ST population. Sometime the SC/ST population have made better progress than the general caste groups of population in their gross enrolment rates. During the decade 1961 and 1971, the growth rate of enrolment of SC/ST population was 5.48 per cent in all educational levels was higher than that of the general castes population (5.23 per cent). Accordingly, the co-efficient of equality

²⁶ Kamat, A.R., op. cit., 1973, pp.312-313.

for SC/ST population²⁷ has increased from 64.70 per cent to 66.70 per cent in 1971 over 1961.

However, if the performance of SC/ST population is to be considered at different educational level it is noted in some studies that the significant increase in their aggregate enrolment ratio is mainly due to the higher increase of enrolments at elementary level of education. Its importance is lost as the drop-outs among SC/ST population is reported to be much higher as compared to the general castes population at the primary level.²⁸ Accordingly, the

²⁷ Naik, J.P., Education of the Scheduled Castes; ICSSR Occasional Monograph No.6, September, 1971, pp.11-12. He devised a co-efficient of equality for the SC/ST from the following formula :

$$\text{Co-efficient of equality} = \frac{\text{Enrolment of SC/ST in any particular educational institution}}{\frac{\text{enrolment of other communities} \times 100}{\text{Population of SC/ST}}}$$

Population of other communities

²⁸ Malvika, Karlekar, op. cit., 1983, p.215.

the wastage and stagnation among the SC/ST children at primary and middle levels of education is found to be three times greater than that of higher castes population.²⁹ Nearly one half of the SC/ST children getting enrolled in class one, drop-out upto class five and only a quarter of them reach in class seven, thus the school leavers after the final examination of class eleven or twelve represents only about 15 per cent of those originally enrolled.³⁰ Due to a frequent and higher drop-outs at the elementary and secondary level of education their strength is very poor at higher levels of education. A study conducted in 57 colleges of Maharashtra³¹ finds that the proportion of Scheduled Caste children was about 6 per cent in 50 colleges while there was no enrolment from them in seven colleges. Similarly, the

²⁹ NCERT, Wastage and Stagnation in Primary and Middle School, New Delhi, 1981, pp.81-84.

³⁰ Naik, J.P., op. cit., 1977, p.4.

³¹ Chitnis Suma, Education of the Scheduled Castes, Journal of Higher Education, Autumn Vol.I, No.2, 1975, p.171.

enrolment of these castes is found negligible in the professional and technical education such as in medical and engineering. Thus Scheduled Caste/ Scheduled Tribe population have been able to attain the elementary level of education but they have generally failed to avail of higher level of education.

2.2.3 Education of Women

Traditionally formal education for women has never been considered important in the Indian society. A study conducted by NCERT revealed that 77.8 per cent parents disfavoured any education for girls.³² However, with the constitutional provision for equal opportunity of education and the efforts made to advance education amongst women, considerable increase has taken place in the participation of women at different levels of education. The literacy rate among women has increased from

³² NCERT, op. cit., 1981, p.83.

7.9 per cent to 24.9 per cent between 1951 to 1981. Enrolment rates of women have increased faster than the enrolment rates for men. During 1951-1981 the gross enrolment rates of women have increased four times while that of males enrolments has only doubled. However, if we consider the enrolments of girls at different educational levels, it is indicated that the wastage and stagnation is playing a more important role in the depletion of female students. The extent of drop-outs of female population is notably higher in rural areas as compared to urban areas.³³ Majority of girls enrolled at various educational levels generally belong to urban, high caste, white collar families and higher income groups.³⁴ In the urban areas educational opportunities for females are much better than in rural areas and also the urban males and females are

³³Gore, M.S., op. cit., 1982, p.34.

³⁴Gould Retayun, Sex Inequality in Dual System of Education, The Parsis of Gujarat; Economic and Political Weekly, Vol. XVIII, No.39, September, 1983, p.1674.

noticed participating in educational system more or less equal.³⁵ The main reason for the female education to lag behind is found to lie in low literacy or limited educational attainment among mothers.³⁶ Besides, lack of sufficient women teachers, irrelevant curriculum and lack of adjustments between school timing to the work requirements of the household are also lacking the females education.³⁷

2.2.4 Differences among Income Groups

Several studies (e.g. by Naik³⁸ and Coleman³⁹) reveal that socio-economic background of population

³⁵ Malvika Karlekar, op. cit., 1983, p.226.

³⁶ NCERT, op. cit., 1971, p.223.

³⁷ NCERT, op. cit., 1981, p.81.

³⁸ Naik, J.P., op. cit., 1977, pp.4-6.

³⁹ Coleman James, The Evaluation of Equity of Educational Opportunity, in Fredrick Mosteller and Daniel P.M. (ed.) On Equality of Educational Opportunity, Random House, New York, 1972.

and pattern of educational attainments are closely related. More particularly the variation in income levels are found to create corresponding variations in participation of population in different educational levels as also in quality of schooling. It is observed that the children from relatively higher income group families not only utilise the educational facilities to a greater extent but ^{also} ~~are~~ are ^{also} educated in better quality schools, whereas the children from poor households are able to participate less at different educational levels and their poor economic condition does not allow them to avail of the facility of better quality schools. It is also observed that family income is positively related with the number of years spent by children in educational system.⁴⁰ Another study⁴¹ reveals that the children of higher

⁴⁰ Mayeske, G.W., (et. al.), A Study of Our Nation's Schools, US Office of Education, Washington D.C., 1969;

Mohanty J., Indian Education in Emerging Society, Sterling Publishers, New Delhi, 1982, p.54;
Bhagawati, J, op. cit., 1973.

⁴¹ Bowles S., Unequal Education and the Reproduction of the Social Division of Labour; Review of Radical Political Economics, Feltwinter, 1971;

Field, G.S., op. cit., 1980, p.263;

Schiefelbein E and John S., The Determinants of School Achievement: A Review of the Research for Developing Countries, IDRC, Ottawa, May 1979.

income groups have ten times better chances of educational attainments than the children of lowest income groups. It is also significant to note that due to interaction between income and education variables educational inequality among different groups tends to perpetuate itself. Various studies⁴² reveal that the educational levels of parents is positively related with the enrolment and retention of children in the educational system. A positive relationship is also noted between the highest level of education attained by any member of the family and the chances of enrolment of the children.⁴³ Chances of availment of educational opportunity for girls is seen better related with the mother's education. Also the children with more educated parents are noticed performing better in the education than the children with less educated parents.⁴⁴

⁴² Chitra Shivakumar, op. cit., 1982, p.54.

⁴³ Dhar, T.N., Ilchman A.S. & Ilchman W.F., Education and Employment in India : The Policy Nexus, Minerva Associates, 1976, p.32; and Papola, T.S. and Ashraf, M.S., op. cit., 1980, p.43.

⁴⁴ Pimpley Prakash N., A Profile of Scheduled Castes Students : A Case of Punjab, Punjab University Press, 1980, pp.4-5; and Bhatnagar, G.S., Education and Social Change : A Study in Some Rural Communities in Punjab, Minerva Associates, 1982, pp.49-50.

2.3 Education, Employment and Earnings

As noted earlier, the earnings of individuals are significantly related with the level of education. However, the level of education is not the sole parameter which determines the earning differentials among individuals. These differentials also exist due to the interaction among the quality of education, ability scores, age, experience, on the job training, productive skill and knowledge of the individuals. Even in the situation of similarity in the above factors, inequality in employment and earnings may also exist by sex, race, tribe, region, rural-urban locations, stratum of labour market in which an individual is employed, and the economic background of the individuals. Thus the variation in employment and earning opportunities is the outcome of an extremely complicated interaction of various factors. Also, inequality in the opportunity of employment and earning of individuals is caused by imperfections in labour market, and variations in organisational pattern of activities.

Yet inequalities in employment and earning opportunities between different groups of population reflect the differences in educational opportunities and their utilisation, to a large extent.

Employment and income opportunities available to rural and urban population differ significantly even for similarly educated persons. That is basically for two reasons. First, employment opportunities available in rural areas are far less than in the urban areas and second, even in the limited jobs available in rural areas, earning levels are lower than in urban areas.⁴⁵ Thus the rural educated have to depend on urban areas for employment to a large extent. But, besides facing greater problems in securing employment than the urban educated, the rural migrants into urban areas get mostly low-paid jobs. It is found that the extent of unemployment is higher among the educated in rural areas than in

⁴⁵ Marshall, R., The Economics of Racial Discrimination : A Survey, Journal of Economic Literature, 12/3, September, 1974, p.856.

urban areas. The study by Tilak⁴⁶ reveals that in rural areas 9.56 per cent of higher educated and 6.48 per cent of the secondary educated population is unemployed while in urban areas the percentages stand at 5.33 and 6.38 respectively. In a study of Malaysia, it was observed that the earnings of rural educated employed in urban areas are significantly lower than those of urban educated.⁴⁷

Similarly, the socially depressed groups like Scheduled Castes/Tribes are observed to have the disadvantage of lower employment opportunities and earnings, as compared to other groups even after they attain a certain level of education. The socio-economic situation of SC/ST population itself is considered to be a major factor in perpetuating this disadvantage as the labour market is not freely

⁴⁶ Tilak Jandhyala, B.G., Education and Labour Market Discrimination, paper presented in the National Seminar on "Education and Job Market", Administrative Staff College, Hyderabad, February 11-14, 1980, p.10.

⁴⁷ Gan Wee and Soon Lee Ying, Earning, Human Capital and Labour Market Segmentation : A Case Study of Employment in Malaysian Manufacturing Sector, A Joint Research Programme Series, IDE, Tokyo, Japan, 1977, p.113.

competitive and access to jobs and particularly better paid jobs is, to a large extent, a function of the socio-economic status of the households. Even when government attempts to remedy the situation by positive discrimination in favour of these groups, through reservations and relaxations in eligibility for employment in different sectors of economy, the gains are found to have mainly gone to those with relatively higher socio-economic status within this group.⁴⁸

In India although Scheduled Castes/Tribes have attained significant changes in their employment and earning conditions as a result of the government policy of protection, their average levels still continue to be significantly lower than those of the general population. A study in Delhi found that high caste Hindus and Sikhs earned 5 per cent higher than the Scheduled Caste workers.⁴⁹

⁴⁸ Government of India, Census of India, Scheduled Castes and Scheduled Tribes, Series I, Paper I of 1975, Census Abstract Series I, India, Part II, A(1).

⁴⁹ Singh, Harbhajan, Socio-Economic, Family Background, Education, Occupation and Labour Market Rewards : A Case Study of Delhi, paper presented in the National Seminar on "Education and Job Market", Administrative Staff College, Hyderabad, February 11-14, 1980, p.14.

Similar disadvantage in employment and earnings is commonly observed in the case of women, particularly in the developing countries, both on account of the socio-cultural constraints imposed by households and discrimination practised by employers. Discrimination against women in employment is largely a result of social values which tend to place women in a secondary position and under subjugation of men. Similarly, employers also recruit women for only certain kind of occupations while in most of the occupations they prefer male workers.⁵⁰

After independence, women are constitutionally promised equal opportunity for employment with their male counterparts. With several attempts in the direction of achieving this goal, the strength of women workers in different occupations and different economic activities have improved at considerable levels. There has been around 70 per cent increase in the women workers in 1971 over 1951.⁵¹

⁵⁰ Marshall, R., op. cit., 1974, pp. 849-871.

⁵¹ Government of India, Census of India, Union Primary Census Abstract Series I, Part II, India, A.I., 1971.

Of the total women in the working age group, only 12 per cent are engaged in different economic activities as against 53 per cent of male population in 1971. On the other hand, out of the total unemployed as recorded in 1971, nearly three fourth of them were women.⁵²

In rural areas women workers are generally confined to agricultural activities and to some extent in traditional household industries. Even educated women are forced to be engaged in these activities. In urban areas, women workers are mainly concentrated in certain kinds of occupations such as doctors, nursing, profession and in public sector and few of them in production process as unskilled and semi-skilled workers. The social barriers against women are also observed in urban areas to some extent. Women with different socio-economic backgrounds are faced with differentials in job opportunities while participating in the labour

⁵²Thakur Sushila, Education, Job Market and Women, Paper presented in the National Seminar on "Education and Job Market", Administrative Staff College, Hyderabad, February 11-14, 1980, p.2; and Tlalk, B.G., op. cit., 1980, p.116.

market. Women who enter the labour market belong either to families with poor economic status or those that are highly educated and belong to families with higher economic status.⁵³ The women of economically poor families work to supplement the low family income by way of compulsion while the relatively better off women are motivated for some notion of independence.⁵⁴ A study by Tilak⁵⁵ reveals that the total disadvantage of women in employment depresses their position to an extent of 68 per cent from the point of equality with men. On the other hand, the relative proportion of women in total workers and average earnings in each category of activity suggest a negative relationship between the share of women in employment and in the levels of earnings.

⁵³ Seshaih, S., Levels of Livings in Karnataka, Institute for Social and Economic Change Bangalore, (Mimeo.), 1980.

⁵⁴ Papola T.S., Women Workers in an Urban Labour Market : A Study of Segregation and Discrimination in Employment in Lucknow, GIDS (Mimeo), 1982, p.162.

⁵⁵ Tilak Jandhyala B.G., Inequality by Sex in Human Capital Formation, Labour Market, Discrimination and Returns to Education; paper presented in the National Seminar on "Education and Job Market", ASCI, Hyderabad, 1980, p.13.

It has also been pointed out that the participation in economic activity starts decreasing much before the end of the active working life. Such trend has been well understood in the case of women workers. It is caused by a lower participation by women after marriage.⁵⁶ After marriage women mainly attend to their family responsibilities and very small number of them remain in employment.⁵⁷

2.4 Employment and Earning Differentials among Similarly Educated

Employment and earning opportunities of individuals are determined by several socio-economic variables, besides education, and conditions in the labour market.⁵⁸ Field lists these factors as exogenous such as family background, race, sex, and endogenous such as occupation, industry or employment characteristics of the occupation, industry

⁵⁷ Tilak Jandhyala, B.G., ibid, 1980, p.11.

⁵⁸ Papola, T.S., op. cit., 1982, p.116.

⁵⁹ Field G.S., op. cit., 1980, pp.247-249.

or firm and the place of work. Thus even having similar level of education the socio-economic background of individuals can exert a direct as well indirect influence on their employment and earning opportunities.⁵⁹ There are two groups of studies, one of them considers the socio-economic background of the individuals influencing their employment and earning opportunities only by indirectly, while the other group postulates that the employment and earning opportunities of the individuals are the interaction of the direct as well as indirect effects of their socio-economic background. Studies by Field⁶⁰ and Mazumdar⁶¹ revealed that the family background of individuals has been influencing their earnings indirectly while its direct effect has been

⁵⁹ Carnoy Martin, Earnings and Schooling in Mexico, Economic Development and Cultural Change, July, 1967; and Gan Wee Beng, op. cit., 1977, p.89.

⁶⁰ Field G.S., Education and Economic Mobility in the Less-Developed Country, Economic Growth Centre Discussion paper No.237, Yale University, June, 1976.

⁶¹ Mazumdar, Deepak, Urban Labour Market and Income Distribution in Peninsular Malaysia, Washington D.C., World Bank, 1979.

found negligible, sometimes both the direct and indirect effects together are significantly related with the earning profiles of the individuals. A study by Blaug⁶² reveals that father's occupation alone is not a significant variable while parent's educational levels and their occupation together are affecting the individual's earning pattern.

It is also observed that there is a significant relationship between the occupations of individuals and their parents occupations. Jobs with higher levels of earnings are predominantly occupied by members of high income groups and the accessibility of the lower income groups of individuals to them is limited.⁶³ Gen Wee Beng's⁶⁴ study finds that about 60 per cent of the sons of fathers who were in managerial and professional categories landed in jobs of a similar nature and 68 per cent of the

⁶²Blaug Mark, An Economic Analysis of Personal Earnings in Thailand; Economic Development and Cultural Change, October 1974.

⁶³Jencks, op. cit., 1972, p.219.

⁶⁴Gen Wee Beng, op. cit., 1977, pp.62-63.

the sons have followed in their father's footsteps.

Further, socio-economic background of individuals is also noticed directly related with their propensity of migration. Although, the propensity of migration for shorter distance can be assumed to be equal among the individuals with higher levels of education whether they belong to upper or lower socio-economic families.⁶⁵ But migration made for longer distance has been found higher among the individuals of higher income groups than the lower income groups. Such inequalities in the propensity of migration of individuals influence the differentials in the employment and earning opportunities among them in favour of those who migrate.⁶⁶

Migration in the case of poor family individuals is generally observed for shorter distances. Even if they do migrate for longer distances, they accept

⁶⁵ Panchmukhi, P.R., Employment and Educational Policy : An Indian Experience, Manpower Journal, Vol.1, No.1, April-June, 1978, pp.31-52.

⁶⁶ Yablonsky Y.L., The Attraction of Cities, A Review of the Migration Literature, Journal of Development Economics, 1977.

even the low status occupation or low earning employment because their poor economic condition does not allow them to remain unemployed for longer duration and bear the cost of living at the place of destination. On the other hand, individuals from upper income groups have sufficient financial support to meet their travel and unemployment costs.⁶⁷ Thus, it is not merely the level of education which influence the propensity of migration but the level of family income is also equally important. The trend of migration among ^{the} educated increases according to the increase in the income level of the families, even among those similarly educated.

Quality of education, which is also found to differ among different groups has a direct effect on the accessibility of superior employment and earning opportunities. Individuals who have availed qualitatively better education are able to face the labour market competitions better than the individuals

⁶⁷Yap L., Rural-Urban Migration and Urban Unemployment in Brazil, Journal of Development Economics, Vol.III, No.3, 1976.

who have availed relatively poor quality of education. The sociological and psychological⁶⁸ explanations also suggest that the variation in the quality of education acts as a screening devices to select the best and reject the disqualified workers for the availment of better employment opportunities. Therefore, individuals with poor quality education either get low paid jobs or remain unemployed.⁶⁹ Thus, the individuals with poor socio-economic background have the maximum disadvantage firstly, in the availment of desired level of education and secondly, even if some of them have received the desired level of education, the opportunity of better employment and earnings is not available to them due to the poor quality of education they are able to acquire.

Beside these socio-economic variables, there are labour market imperfections and differentials

⁶⁸ Blaug Mark, Thoughts on the Distribution of Schooling and the Distribution of Earnings in Developing Countries, Paris, Working Document IIEP/S, 49/5A, IIEP, November 1976; Blaug Mark, Education and the Employment Problem in Less Developing Countries, ILO, Geneva, 1973.

⁶⁹ Government of India, Expert Committee on Unemployment Report of the Findings of Employment in Certain Selected Rural-Urban Areas of Assam, Department of Economics, Dibrugarh University, 1974, pp.14-16.

in the characteristics of different economic sectors which perpetuate inequalities in the employment and earning opportunities among the individuals even with similar levels of education. In the labour market there are wide ranging differentials in earnings. They vary between the occupational groups within an industry and similar level and category of occupations with similar nature of industries located in different locations and regions. Besides, the differences in the status and the organisation pattern of the industries the size of industrial units and the technology are also important factors which significantly influence the wage rates in different industrial groups. The larger size units which use modern technologies make occupational mobilities⁷⁰ highly difficult so that the extent of differentials in the wage scales exists between these large scale units and the other small scale units in similar categories of occupations.⁷¹ The

⁷⁰ Papola, T.S., Wage Differentials and Competition in the Labour Market, The Indian Journal of Labour Economics, April-July, 1974, Nos.1-2, p.40.

⁷¹ Nath Rabindra, Occupational Pattern and Wage Structure in Indian Industries, Sterling Publishers, 1976, p.116.

extent of inter-industry variation in the occupational wage rates suggest that certain industrial characteristics play a significant role to render the labour market non-competitive even for homogeneous units of labour.⁷² Besides, the differences in earnings exist due to the differentials in the ownership and the organisation pattern of industry, economic activity, and the status of employment of the worker. Relating organisational structure with earning differentials, a study by Singh⁷³ revealed that the person to be employed by a public undertaking is to earn Rs.196 per month more, by a joint stock company is to earn Rs.160 per month more and by a government office is to earn Rs.121 per month more than to be employed by a proprietor, partnership or a cooperative society. Similarly, the permanent employees earn significantly higher than the employees whose employment tenures are either quasi-permanent or temporary.

⁷² Papola T.S. and Subrahmain, K.K., Wage Structure and Labour Mobility in a Local Labour Market, Mimeograph Series, SPIESR, Ahmedabad, Popular Prakashan, 1975, p.117.

⁷³ Singh Harbhajan, op. cit., 1980, p.27.

Segmentation of labour market into primary and secondary sectors also influences the pattern of employment and earning opportunities. In the secondary sector labour is mostly organised, earnings are high, has better prospects of promotion, better working conditions and security of jobs while the primary sector is characterised by low paid, and have unstable working conditions and insecurity of jobs.⁷⁴ The determination of earnings in the primary sector occupations depends on the status of employment conditions of the individuals. In the secondary sector the wages of workers are sensitive to accumulation of human capital and this is re-inforced by the working of the structural internal labour market while in the primary sector the human capital is largely irrelevant to the determination of individuals earnings.⁷⁵ Workers in the primary sector relative to those in the secondary sector exhibit

⁷⁴ Doeringer Peter B. and Picaro Michal J., Internal Labour Market and Manpower Analysis, Lexington, Mass Health, 1971.

⁷⁵ Gan Wee Beng, op. cit., 1977, p.15.

greater turnover, and absenteeism,⁷⁶ therefore, the returns to schooling are significantly higher for workers in secondary sector than in the primary sector. Sometimes, the returns to schooling of individuals in the secondary sector are found to be more than double as compared^{to} that in the primary sector.⁷⁷

Thus we find that the variations in the employment and earning opportunity of individual are a result of direct and indirect interaction of their socio-economic background and the labour market imperfections. More particularly, the socio-economic variables have been found an important determinant of the employment and earning opportunities of the individuals even in the context of similar levels of education.

⁷⁶Piore, M., Notes for a Theory of Labour Market Segmentation, Lexington, Mass, Heath, 1975; Reich M. (et. al.), A Theory of Labour Market Segmentation, American Economic Review, Vol.63, No.2, May 1977; Doeringer Petter B. and Picaro Michel J., op. cit., 1971, pp.165-166.

⁷⁷Gan Wee Beng, op. cit., 1977, p.161.

Chapter III

EXPANSION IN EDUCATIONAL FACILITIES

In order that education proves an instrument of social change, development and equity, the first important precondition is that adequate opportunities for education are available and different groups in society have access to them. It is to this aspect that we devote our attention in this chapter.

3.1 Educational Policies and Provisions

Before independence the first non-official attempt was made in 1938 for educational development when a committee was set up to formulate the plan for educational development. In this plan the emphasis was given to the development of general education as well as technical education and research. This plan for non-official educational policy was latter adopted by the Government of India in 1943 to prepare a plan for Post-War Educational Development for all kinds of education. This plan suggested the provision of basic education, adult education,

welfare of school children, school building; recruitment, training and service conditions of teachers, the selective admission based on merit and liberal financial assistance to talented poor students.¹

After independence the Constitution of India incorporated educational development as an integral objective of national policy. The Constitution laid down the provision of free and compulsory education for children of 6-14 years of age groups. The First Five Year Plan gave emphasis on the development of different levels of educational institutions according to the needs of rural and urban areas, and providing various basic facilities in these institutions which included the improvements in the quality of teachers through imparting training suited to different kinds of education in different areas, up-grading the remunerations and service conditions of teachers and thus provided the equal opportunity of education to the

¹ National Planners Committee on Education (1948)
Quoted in Education in India (1781-1985) Politics, Planning and Implementation by Kuldip Kaur, 1985, p.61.

population living in different areas.² In all the subsequent Five Year Plans education has been considered as an important factor in achieving rapid development through technological progress and in creating a social order, with social justice and equal opportunity.³ It was also felt that the programmes for alleviation of poverty, reduction of social and economic inequalities and improving productivity can and should be integrated with educational development. Further the strategies for educational programmes, training and their organisation designs were also to focus in particular on women, youth and economically weaker groups so that they can make increasing contribution to the socio-economic development of the country.

3.1.1 Provision of Education for Rural Areas

Before independence, a sizeable part of the rural areas was untouched by the facilities for different

² Government of India, First Five Year Plan, Planning Commission, New Delhi, p.567.

³ Government of India, Seventh Five Year Plan, Planning Commission, New Delhi, p.252.

levels of education. Initiatives for educational development in rural areas was first undertaken in the Sargent Plan in 1944. The plan later received considerable ground under the constitutional objectives of free India. After independence the University Grant Commission (1948-49) recommended the provision of establishing rural universities and colleges besides the expansion of secondary level of education. Further, the Secondary Education Commission (1952-53) invited attention towards the diversification of secondary education, stating its importance in view of the urgent problem of poverty and need for its alleviation by improving the productive efficiency among rural population.

Likewise, the universal coverage of school level educational facilities and the provision of compulsory education for the children in the age-group of 6-14 years were considered integral objectives of development strategies of the nation. These objectives were sought to be achieved through providing tuition free education to all school going children and establishment of Junior and Senior basic schools within the

distance of 1.5 kms and the senior basic schools within the radius of 3 kms and inhabitants where population exceeds 300 and 800 respectively for junior and senior basic schools.⁴

3.1.2 Provision of Education for Scheduled Castes/Tribes

Educational development among the socio-economically weaker groups of population such as SC/ST have been considered as an important obligation under the constitutional provision. The Constitution of India (Article 29) states that the state shall promote with special care the educational and economic interests of the weaker sections of the population and in particular of Scheduled Castes/Tribes; and shall protect them from the social injustice and all forms of exploitations.⁵ Accordingly, the Union Ministry of Education sent a circular to different States/Union

⁴NCERT, Education and National Development, Report of the Education Commission (1964-66), 1971, p.69.

⁵Government of India, The Constitutional of India, Ministry of Law, Justice and Company Affairs, New Delhi, 1963, p.22.

Territories in 1954 asking them for reservation of twenty per cent seats in admission of SC/ST population in educational institutions. Besides, emphasis was also laid on the expansion of educational facilities in different areas giving the priority to the areas dominated by SC/ST population, and also on providing common incentives and subsidies in general and free tuition, books and stationary aids, scholarships, free hostel accommodation for SC/ST students. Later, Education Commission (1964-65) recommended continuation and expansion of educational development programmes and the provision of hostel facilities for these groups.⁶

At present, almost in each State 18 per cent of seats are reserved for Scheduled Castes and 2 per cent of seats for Scheduled Tribes in the various recognised educational institutions, besides the facilities of relaxation in minimum marks at the time of admissions. However, in some states the reservation in seats for admission of SC/ST is provided on the basis of their proportion in the population of the State.

⁶ NCERT, op. cit., 1971, pp. 242-248.

Besides, the SC/ST students are given general and residential scholarships, special coaching facilities in different educational levels from Ministry of Education, NCERT, Ministry of Home Affairs and several other organisations.⁷ Under the provision of opportunity cost system, the SC/ST girls and boys studying in class first to five whose parent's monthly income is less than Rs.750 are provided scholarships @ Rs.15 and Rs.3 per month respectively.⁸ Some of the states like Tamil Nadu, Kerala, Rajasthan and Karnataka are providing supplementary scholarships, free supply of books, and stationery, dresses etc. States like Tamil Nadu, Kerala and U.P. have introduced the mid-day meals also and Bihar, Gujarat have introduced the system of providing residential accommodations to the children of SC/ST groups.

Thus the country is striving for the expansion in educational facilities and providing various kinds of incentives so that each group of population living

⁷ Government of India, Educational Facilities to Scheduled Castes/Tribes, Planning, Monitoring and Statistics Division, Ministry of Education, New Delhi, 1985, p.3.

⁸ Government of India, op. cit., 1985, pp.51-53.

in accessible or remote areas of the country and belonging to poor as well as socio-economically better groups could avail educational facilities equitably and improve their socio-economic status and life styles.

3.1.3 Provision of Education for Women

Traditionally women in India have remained behind men in the availment of educational opportunities due to several social and other basic obligations. The attempt at equalisation of educational opportunity among boys and girls was initiated with the establishment of Indian Education Commission in 1882. Further in 1904, Government of India's Resolution on Education Policy emphasised the need for the development and basic improvements in the girls education. Again in 1919, the Resolution of the Government of India reiterated the policy that the education of girls needed more financial fostering than that of boys and primary education must be free and scholarships and student-ships must be provided for solving the problems which retarded the development of education among women.

After independence, efforts in educational development among women have been given due consideration, not only as a measure of social justice but also of social transformation. The Secondary Education Commission⁹ recommended that there should be provision of separate schools for girls and better educational facilities than those available in co-educational schools. The Commission also recommended the provision of co-education systems provided that those institutions would have the provision of such subjects as are suited to girls, and adequate number of women teachers, special curricular activities suited to girls and women representation in the management. Further in 1958, Ministry of Education appointed a National Council on Women's Education¹⁰ which recommended the implementation of special educational programmes and schemes for women, provision of sufficient funds, administrative efforts to check out the measures of planning and

⁹ Government of India, Report of the Secondary Education Commission, 1952-53, 1971, pp.80-215.

¹⁰ Education in Retrospect, A Review of the Reports and Recommendations of Commissions, Committees, unpublished, compiled by I.K. Sandhu, 1975, p.93.

implementation of educational development programmes for women. Indian Education Commission (1964-65)¹¹ emphasised the provision of better access of educational facilities in different regions and the promotion of common school system for all students in general and in particular to girls and other disadvantaged groups of population.

Likewise under the various plans, the initiatives for educational development among women are undertaken with the greater expansion of girls educational institutions and providing sufficient educational infrastructures in these institutions. In the first plan general emphasis was laid in the development and expansion of education but no special measures were undertaken to the women's educational developments. Greater emphasis on the approach of equalisation in educational opportunities was focussed after the Second and subsequent Five Year Plans. Particular attention has been paid towards providing special scholarships, expansion of girls schools and hostel facilities.

¹¹ NCERT, op. cit., 1971, pp.XVII-XVIII.

3.2 Expansion of Educational Facilities

It is generally believed that there are extent of inequalities in the existing pattern of expansion in educational facilities between rural and urban areas and also for men and women. We, therefore, propose to examine and analyse the pattern and trends in the expansion of educational facilities during last four decades from this angle in the case of India as well as Uttar Pradesh.

Most rapid expansion is found to have taken place in the case of higher educational institutions whereas the number of primary schools has had the lowest increase. Further the expansion in different levels of educational institutions has been at a comparatively lower rate in the State than in the country as a whole. This difference in favour of the country is relatively higher in the expansion of middle and higher followed by secondary and primary levels of educational institutions (Table 3.1).

Table 3.1 : Number of Educational Institutions in India and U.P.

Level of Education	1950-51		1960-61		1970-71		1980-81	
	India	U.P.	India	U.P.	India	U.P.	India	U.P.
Primary	209671 (100.00)	31979 (100.00)	330399 (157.57)	40083 (125.34)	408378 (194.77)	62127 (194.27)	485538 (231.57)	70606 (220.78)
Middle	13596 (100.00)	2854 (100.00)	49963 (365.27)	4335 (151.89)	90621 (666.52)	8787 (307.88)	116447 (856.47)	13555 (474.94)
Secondary	7295 (100.00)	987 (100.00)	17270 (236.73)	1771 (179.43)	36756 (503.85)	3415 (345.99)	51620 (707.60)	5178 (524.62)
Higher	706 (100.00)	46 (100.00)	1866 (264.30)	137 (297.82)	3590 (508.49)	258 (560.86)	7991 (1131.86)	380 (826.08)

Source : i. A Hand Book of Educational and Allied Statistics, Ministry of Education and Culture, Government of India, New Delhi.

ii. Shikshya Ki Pragti, Directorate of Education, Allahabad, 1984-85.

N.B. Figures in parenthesis indicate index with 1950-51 as base.

Further examining the availability pattern of different levels of educational institutions per lakh of population our analysis reveals that beginning from the First Five Year Plan period the educational institutions for each level per lakh of population are increasing significantly in U.P. Thus it seems that the expansion of primary levels of education has been brought out at much greater extent in different states during the period of Third and Fourth Five Year Plans.

The population per institution has been always higher in U.P. than in India as a whole throughout the last four decades. The relative differentials have been comparatively at higher rate in favour of country at higher level of education followed by the middle and secondary levels. However, at the primary level of education the pressure of population in Uttar Pradesh has decreased to somewhat higher extent than in the country as a whole.

When we analyse the teacher student ratio at different educational levels we find that the number

Table 3.2 : Educational Institutions per Lakh of Population

Level of Education	1950-51		1960-61		1970-71		1980-81	
	India	U.P.	India	U.P.	India	U.P.	India	U.P.
Primary	59.06 (100.00)	50.59 (100.00)	75.22 (129.55)	54.31 (107.35)	74.49 (128.29)	70.35 (139.05)	70.86 (122.04)	63.66 (125.83)
Middle	3.76 (100.00)	4.51 (100.00)	11.30 (300.53)	5.87 (130.15)	16.53 (439.62)	9.95 (220.62)	16.99 (451.86)	12.22 (270.95)
Secondary	2.02 (100.00)	1.56 (100.00)	3.93 (194.55)	2.39 (153.20)	6.70 (331.68)	3.86 (247.43)	7.53 (372.77)	4.66 (298.71)
Higher	0.19 (100.00)	0.07 (100.00)	0.42 (221.05)	0.18 (257.14)	0.65 (342.10)	0.29 (414.29)	1.16 (610.52)	0.34 (485.71)

Source : 1. A Hand Book of Educational and Allied Statistics, Ministry of Education and Culture, New Delhi.

11. Shikshya Ki Pragti, Directorate of Education, Allahabad.

N.B. : Figures in parenthesis indicate index with 1950-51 as base.

of students per teacher have increased at a higher rate in primary education in India and in secondary level of education in the State during 1980-81 over the year 1950-51. The student-teacher ratio is significantly lower in the country as a whole than in the State in secondary and higher education. At the primary level, the student teacher ratio is now much lower in U.P. than in the country (Table 3.2).

3.2.1 Educational Facilities in Rural and Urban Area

Examining the expansion pattern of educational facilities in rural and urban areas, we find that the expansion of different levels of educational institutions has been considerably larger in rural areas than in urban areas both in U.P. and the country as a whole. This is true of the institutions imparting primary and middle level of education. Growth of institutions of higher education is also observed to be higher in rural areas, but most institutions at this level are, of course, located in urban areas. Thus, the expansion of educational facility has been

Table 3.3 : Student - Teacher Ratio in Different Levels of Education

Level of Education	1950-51		1960-61		1970-71		1980-81	
	India	U.P.	India	U.P.	India	U.P.	India	U.P.
Primary	35.60 (100.00)	38.79 (100.00)	47.11 (132.33)	39.96 (103.01)	53.81 (151.15)	52.20 (134.57)	55.51 (155.92)	37.81 (97.47)
Middle	36.49 (100.00)	24.00 (100.00)	19.42 (52.22)	23.63 (98.45)	20.88 (57.22)	26.46 (110.25)	23.89 (65.46)	24.68 (102.83)
Secondary	9.64 (100.00)	22.90 (100.00)	9.69 (100.51)	25.28 (110.39)	10.45 (108.40)	29.07 (126.94)	10.53 (109.23)	29.76 (129.95)
Higher	7.09 (100.00)	20.06 (100.00)	4.92 (69.39)	17.83 (88.88)	6.34 (89.42)	20.14 (100.39)	8.21 (115.79)	24.46 (121.93)

Source : i. A Hand Book of Educational and Allied Statistics, Ministry of Education and Culture, Government of India, New Delhi.

ii. Shikshya Ki Pragti, Directorate of Education, Allahabad, 1984-85.

N.B. Figures in parenthesis indicate index with 1950-51 as base.

in favour of rural areas particularly at the middle and primary level of education. It is also noted that the expansion of primary educational facilities in rural areas has been faster in Uttar Pradesh than in the country as a whole. However, the facilities for middle and secondary education are noticed expanding at higher rate in both the rural as well as in urban areas of the country as a whole than in the State.

The faster increase in educational facilities in rural areas is seen more sharply if we consider the increase in the number of educational institutions per lakh of population in the rural and urban areas. This number has increased much faster in the rural than in urban areas, both in India and U.P. and at different levels of education. Uttar Pradesh, has shown much better progress in the primary education in rural areas than the country as a whole. The expansion of secondary institutions has, however, been much faster than the primary schools in rural areas, both in India and U.P. The higher educational

Table 3.4 : Educational Institutions in Rural and Urban Areas

Level of Education	1950-51		1960-61		1970-71		1980-81	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Primary								
India	176027 (100.00)	33644 (100.00)	301518 (171.29)	28881 (85.84)	372942 (211.86)	42543 (126.45)	443892 (252.17)	41646 (123.78)
U.P.	23710 (100.00)	8269 (100.00)	35302 (148.89)	4781 (57.81)	55998 (236.17)	6129 (74.12)	64021 (270.01)	6585 (79.63)
Middle and secondary								
India	13240 (100.00)	7651 (100.00)	49464 (373.59)	17469 (228.32)	100223 (756.97)	27154 (354.90)	128257 (968.70)	39810 (530.32)
U.P.	2289 (100.00)	1552 (100.00)	2521 (110.13)	1585 (102.12)	8707 (380.38)	3495 (225.19)	14716 (642.90)	4017 (258.84)
Higher								
India	58 (100.00)	648 (100.00)	270 (465.51)	1596 (246.29)	1823 (3143.1)	1767 (272.68)	2541 (4381.03)	5450 (841.04)
U.P.	"	46* (100.00)	"	137* (297.82)	"	258* (560.86)	-	380* (826.08)

Source : i. Statistical Abstract India, 1984, No.27, Central Statistical Organisation, Department of Statistics, Ministry of Planning, India.

ii. Shikshya Ki Pragati, Directorate of Education, Allahabad, 1984-85.

* The break-up of higher educational institutions between rural and urban areas is not available.

N.B. Figures in parenthesis indicate index with 1950-51 as base.

institutions have increased at higher rate in rural areas but in absolute terms, their number per lakh of population is much less in rural than in the urban areas in the country.

Thus finally, we find that however the expansion of educational facilities has been faster in rural areas than in the urban areas. But it has also to be recognised that the urban population have the additional advantage of private educational institutions which are generally not available in rural areas. The information on private of educational institutions is neither available nor included in our analysis.

3.1.2 Educational Facilities for Women

As far as educational facilities for females are concerned we have analysed the facilities available in Uttar Pradesh. There are no separate government primary schools for girls in the State at present, though such schools existed during 1950-51 to 1970-71. During this period the expansion of primary schools for girls took place at much faster rate than of the

Table 3.5 : Educational Institutions per Lakh of Population in Rural and Urban Areas

Level of Education	1950-51		1960-61		1970-71		1980-81	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Primary								
India	58.95 (100.00)	53.83 (100.00)	83.68 (141.95)	36.60 (67.99)	94.95 (144.10)	38.99 (72.43)	84.47 (143.29)	26.07 (48.43)
U.P.	43.42 (100.00)	96.15 (100.00)	54.90 (126.43)	50.32 (52.33)	73.68 (169.69)	49.42 (51.39)	70.35 (162.02)	33.09 (34.41)
Middle and Secondary								
India	4.43 (100.00)	12.24 (100.00)	13.72 (309.70)	22.14 (180.88)	22.82 (515.12)	24.83 (203.26)	24.40 (550.79)	24.92 (203.59)
U.P.	4.19 (100.00)	18.04 (100.00)	3.92 (93.56)	16.68 (92.46)	11.45 (273.27)	28.18 (156.21)	16.17 (385.92)	20.18 (118.86)
Higher								
India	0.01 (100.00)	1.03 (100.00)	0.07 (700.00)	2.02 (196.11)	0.41 (4100.00)	1.61 (156.31)	0.48 (4800.00)	3.41 (331.06)
U.P.	Nil	0.53 (100.00)	Nil	1.44 (271.69)	Nil	2.08 (392.45)	Nil	1.90 (358.49)

Source : i. Statistical Abstract India, 1984, No.27, Central Statistical Organisation, Department of Statistics, Ministry of Planning, India.

ii. Shikshya Ki Pragati, Directorate of Education, Allahabad, 1984-85.

N.B. Figures in parenthesis indicate index with 1950-51 as base.

schools for boys. Yet the number of boy's schools were 4.5 times more than the schools for girls. Now all government primary schools are coeducational. At higher levels of education, where separate facilities exist for women, besides coeducational facilities in common institutions, the women's institutions has grown in numbers faster than common institutions.

Thus, it appears that the considerable attention has been given to the expansion of educational facilities for girls but the numbers of educational institutions for girls in different levels are comparatively at lower proportion than that of boys (Table 3.6).

3.3 Educational Facilities in the Sample Areas

Although during the planned development great emphasis has been laid on the educational expansion in both rural and urban areas, it is widely observed that there are at present glaring inequalities in educational facilities between rural and urban areas. The urban population has the advantage of all kinds

Table 3.6 : Educational Institutions for Men and Women

Level of Education	1950-51		1960-61		1970-71		1980-81	
	Men	Women	Men	Women	Men	Women	Men	Women
Primary	29459 (100.00)	2520 (100.00)	35156 (119.34)	4927 (195.44)	50503 (171.43)	11624 (461.27)	70606* (239.68)	
Middle	2386 (100.00)	468 (100.00)	3674 (153.98)	661 (141.24)	6779 (284.12)	2008 (429.06)	13055 (547.15)	3200 (683.76)
Secondary	833 (100.00)	154 (100.00)	1489 (178.75)	282 (183.12)	2634 (340.22)	561 (377.27)	4420 (530.61)	758 (492.21)
Higher	40 (100.00)	6 (100.00)	117 (292.50)	20 (333.33)	205 (512.50)	53 (883.33)	302 (755.00)	78 (1300.00)

Source : Shiksha Ki Pragati, Directorate of Education, Allahabad, 1984-85.

N.B. Figures in parenthesis indicate index with 1950-51 as base.
*Mixed Schools.

of educational facilities which are available locally and they have to cover only short distances whereas the majority of rural population have to cover longer distance even for primary and middle level of education. It is also noticed that the institutions for secondary education are available either in the small town or in the district headquarter only.

In our sample of rural areas primary and middle levels of education are easily accessible to the local population. The average distance at which these facilities are available works out to around one km (Table 3.7). It is also, however, noted that the population which do not have the facility for these levels of education within their respective villages, avail of educational facilities located at a distance only to a limited extent. This is true of the secondary

Table 3.7 : Average Distance for Various Levels of Educational Facilities in Rural Areas

Level of Education	Currently enrolled (Students)	
	Average distance (in km)	Number of students
Primary	0.63	122
Middle	1.09	64
High School	5.19	36
Intermediate	4.83	18
Graduation & Above	19.33	6

Source : Compiled from Sample Data.

levels of education (high school and intermediate) the institutions which are located at a sizeable distance in case of most villages. For the utilisation of this level of education the population of sample villages have to cover a distance of about 5 kms. For availing facilities of higher education the rural population has to travel an average distance of around 19 kms.

It is found that there is no separate educational institution for females at primary level in the sample villages or nearby. However, one village which is well connected with the small town has a middle and a high school for girls.

There has been a rapid expansion of school level of educational institutions in the rural areas, but the higher levels of educational institutions (colleges and universities) are obviously concentrated in urban areas. Due to non-availability of opportunities for higher education in rural areas the rural population have to depend upon the urban areas or they have to discontinue after the completion of school education,

Only few persons belonging to big landholding and higher income groups of rural households are able to utilise the facility for higher education located in urban areas.

In principle the women have opportunities for education both in mixed and exclusively female institutions, and, are thus in an advantageous position than men. But girls, particularly in the rural areas do not often utilise the facilities for coeducation for socio-cultural reasons and to the extent schools exclusively meant for them are not available at primary level and are small in numbers for higher levels, in practice facilities for education for women are rather limited.

Chapter IV

PATTERN OF EDUCATIONAL UTILISATION

Expansion in educational facilities is necessary but not a sufficient condition for the different socio-economic groups of population to attain its benefits in terms of employment and income opportunities. What is much more important is the extent to which these facilities are utilised by these groups. Success in providing educational opportunities can be meaningful only when various groups of population utilise it fully and equitably.

We shall now, therefore, examine the extent and pattern of utilisation of educational facilities in terms of enrolment and drop-out rates in general and among different groups of population identified by us for our study viz., rural-urban male-female, scheduled castes/tribes - general castes and different income groups.

4.1 Enrolment Rates

4.1.1 Differentials between India and U.P.

The enrolment rates at each level of education are found increasing at significant levels in India

as well as in U.P., however, the indices of enrolments appear to be increasing at higher rate in favour of India as compared to U.P. at almost all the levels of education, except at the higher level of education, the enrolment rates as well as the pattern of increase in enrolments have been found to be higher in the State than in the country for last three decades. The highest differentials in the indices of enrolments in favour of India than U.P. is noticed mainly at primary level of education, while these differentials are very marginally at the level of middle and secondary education in 1980-81.

Further, there exists larger differentials in the enrolment rates between different sexes, as the enrolment rates of females at each level of education are relatively at lower extent than their male counterparts in India as well as in U.P. However, the indices of enrolments appear to be increasing to a higher extent in favour of females as compared to males in the State as well as country as a whole beginning from the year 1950-51 to 1980-81. The highest progress regarding the increase in enrolments of both the sexes

Table 4.1 : Enrolment Rates at Different Levels of Education in India and U.P.

Level of Education	1950-51	1960-61	1970-71	1980-81
Primary				
India	42.60 (100.00)	62.40 (146.48)	76.40 (179.34)	83.10 (195.07)
U.P.	35.70 (100.00)	44.70 (125.21)	90.80 (254.34)	65.30 (182.91)
Middle				
India	12.70 (100.00)	22.50 (177.16)	34.20 (269.29)	40.00 (314.96)
U.P.	11.70 (100.00)	16.60 (141.88)	35.70 (305.13)	36.82 (314.70)
Secondary				
India	5.30 (100.00)	10.60 (200.00)	19.00 (358.49)	21.90 (413.21)
U.P.	4.80 (100.00)	7.80 (162.50)	15.30 (318.75)	19.80 (412.50)
Higher				
India	0.80 (100.00)	1.80 (225.00)	4.00 (500.00)	4.80 (600.00)
U.P.	0.70 (100.00)	2.30 (328.57)	4.40 (628.57)	6.00 (857.14)

Source : 1. Draft Fifth Five Year Plan, 1974-79, Part II, Planning Commission, Govt. of India,

ii. Education in India, Ministry of Education and Social Welfare, Govt. of India, 1950-51, 1960-61, 1970-71 and 1980-81.

N.B. Figures in parenthesis indicate index with 1950-51 as base.

Level of Education	1950-51		1960-61		1970-71		1980-81	
	Men	Women	Men	Women	Men	Women	Men	Women
Primary								
India	59.80 (100.00)	24.60 (100.00)	82.60 (138.12)	41.40 (168.29)	92.60 (154.85)	59.10 (240.24)	99.00 (165.55)	66.20 (269.11)
U.P.	58.5 (100.00)	10.80 (100.00)	68.80 (117.61)	19.40 (179.63)	105.20 (179.83)	73.50 (690.56)	85.78 (146.63)	43.00 (398.15)
Middle								
India	20.70 (100.00)	4.50 (100.00)	34.30 (165.70)	10.80 (240.00)	46.50 (224.64)	20.80 (462.23)	52.10 (251.69)	27.20 (604.44)
U.P.	20.30 (100.00)	2.10 (100.00)	26.70 (131.53)	5.20 (247.62)	53.60 (264.04)	14.60 (695.24)	53.33 (262.71)	18.70 (890.48)
Secondary								
India	8.80 (100.00)	1.70 (100.00)	17.50 (198.86)	4.30 (252.94)	27.10 (307.95)	10.20 (600.00)	29.90 (339.77)	13.90 (817.65)
U.P.	7.60 (100.00)	1.00 (100.00)	11.00 (144.74)	3.10 (310.00)	24.60 (323.68)	5.00 (500.00)	28.60 (376.32)	10.80 (1080.00)
Higher								
India	1.20 (100.00)	0.10 (100.00)	2.20 (183.33)	0.50 (500.00)	5.70 (475.00)	2.00 (2000.00)	5.30 (441.67)	2.20 (2200.00)
U.P.	0.60 (100.00)	0.10 (100.00)	1.80 (300.00)	0.40 (400.00)	5.30 (883.00)	2.40 (2400.00)	5.40 (900.00)	2.60 (2600.00)

Source : i. Draft Third, Fourth and Fifth Five Year Plans. Planning Commission, New Delhi.
 ii. A Hand Book of Education and Allied Statistics. Ministry of Education and Culture, New Delhi.

iii. Education in India, Ministry of Education and Social Welfare, Govt. of India, New Delhi, 1950-51, 1960-61, 1970-71 and 1980-81.

B. Figures in parenthesis indicate index with 1950-51 as base.

was found at the stage of higher level of education followed by secondary, middle and primary levels of education, both in India as well as in U.P. The enrolments ratio in favour of males are registered to be significantly higher as compared to enrolment rates among females in India than in U.P., although the highest increase in enrolments for both the sexes are noticed in favour of U.P. than the national average at all the educational levels except primary level of education.

4.1.2 Rural-Urban Differences

Our analysis reveals that in totality 82.43 per cent of children are enrolled in the primary level of education and the enrolments are found to decline at the middle and higher levels of education in our study area. In the higher educational levels the enrolments are only one-fourth of those in primary education. Further, enrolment rates are found to be significantly lower in the rural areas than in the urban areas consistently in all the groups of school and college going ages of population. Overall, 64 per cent of the urban and 47 per cent of the rural

population in the 6-23 age groups was found enrolled in educational institutions. But the differentials between rural and urban areas widen as we proceed from the lower to higher age groups. At the groups corresponding to primary schooling (6-11 years), 91 per cent of the urban and 75 per cent of the rural children are enrolled in schools. The respective percentages are 84 and 52, in the 12-14 age groups, 73 and 55 in the 15-18 age groups, 29 and 7 in the 19-23 age groups. Thus already wide differences become more acute at the higher level of education.

Table 4.3 : Enrolment Rates of Rural and Urban Population

Age Groups (Yrs.)	Rural			Urban			Total		
	Male	Fe- male	Total	Male	Fe- male	Total	Male	Fe- male	Total
6 - 11	81.82	65.72	74.68	91.43	91.18	91.30	86.08	78.26	82.43
12 - 14	52.38	50.00	51.61	95.46	68.75	84.21	74.42	61.54	69.57
15 - 18	65.12	16.67	54.55	71.43	75.00	73.02	67.95	57.50	64.41
19 - 23	13.52	-	7.47	38.10	22.00	29.35	26.59	13.75	20.13
All Groups	55.17	34.48	47.41	70.15	57.81	64.12	62.37	48.38	56.28

4.1.3 Male-Female Differences

Further considering the utilisation pattern of education among male and female children we find that the enrolment rates of males are significantly higher than the females in all the age groups both in the rural as well as in urban areas. The females are found to be enrolled mainly from the age group of school level education while from the age group 19-23 years (higher education) their enrolment rates are only one-half of the enrolment rates of males. Further, the enrolment rate of females from different age groups are relatively lower in rural areas than in the urban areas. In rural area, the enrolment rate of females is 65.52 per cent in the age group 5-11 years, 50 per cent in the 12-14 age group and 17 per cent in the 15-18 age group while no female is enrolled from the 19-23 age group. The enrolment rates of females in respective age groups in urban area are 91.18, 68.75, 75.00 and 22.00. Similarly the proportions of enrolments of rural males are also behind than the urban males in all the school going age groups. The enrolment rates are thus consistently

lower for females both in rural and urban areas, and in different age groups, but they are particularly so in rural areas in the 14+ age group.

4.1.4 Differences among General Caste and SC/ST

Studies carried out during past have found that there are glaring inequalities in the enrolments at different levels of education among castes, particularly between the scheduled castes and higher castes.¹ Even among the population of a particular caste group, the population with higher income groups or relatively better socio-economic backgrounds are better off as compared to the rest in the availment of educational opportunities.² The studies revealed that the SC/ST population either living in rural areas or in urban areas are mainly enrolled in the school level educational systems while their strength in higher or professional education is negligible or rather low.³

¹ NCERT, op. cit., 1971, p.199.

² Papola T.S. and Ashraf M.S., op. cit., 1982, pp.68-69.

³ Government of India, Report of the Untouchability, Department of Social Welfare, New Delhi, 1969, p.184.

In our sample study, we find that the enrolment rates of general caste population are significantly higher as compared to SC/ST population. These differences, become more marked as we proceed from lower to higher age-groups, corresponding to lower to higher levels of education (Table 4.4). Overall, the enrolment rate of SC/ST population in the age group 6-23 is 48 per cent as against 66 per cent of general caste population. But in the age group 16-18 the SC/ST enrolment rate is 55 per cent against 77 of other castes, and in 19-23 age group the former is 9.5 per cent and the latter 32 per cent.

Table 4.4 : Enrolment Rates of General Castes and SC/ST population

Age Groups (Yrs.)	General Castes			SC/ST		
	Male	Female	Total	Male	Female	Total
6 - 11	90.24	87.50	89.04	81.58	70.27	76.00
12 - 14	83.33	76.92	80.00	70.97	46.15	63.64
15 - 18	82.35	66.67	76.92	56.82	50.00	54.55
19 - 23	41.46	20.67	32.00	10.53	8.70	9.52
All Groups	71.88	58.77	66.23	54.31	39.83	47.96

Enrolment rates of girls both from general castes and SC/ST females is always lower than of boys in all levels of education.⁴ But, girls from general castes have a much higher overall enrolment rate of 59 per cent as against 40 per cent among the girls from SC/ST groups. Differences prevail across the various age groups. Very small proportions (8.79 per cent) of girls in the from SC/ST as against general caste (20.67 per cent) were found in higher education. Differences in male enrolment were shapers at higher level, where only 10.5 per cent of SC/ST boys against 41.5 per cent of them from other castes in the age group 18-23 were found enrolled.

Differences between the two caste groups are found sharper in the rural than in the urban areas, particularly at the higher level of education this cleavage is highly noticeable in rural areas. Of the persons in 19-23 age group 15 per cent of the general caste, but only 2.5 per cent of SC/ST are enrolled. In the areas the differences, though significant are of a lower order, the rates being 42 and 16 per cent respectively.

⁴ Chitra, V.N., The Social Background of Some Undergraduate Women Students in Mysore City, Ph.D. Thesis, Delhi University, 1969.

Table 4.5 : Enrolment Rates of General Castes and SC/ST Population in Rural and Urban Areas

Age Groups (Years)	Urban		Rural	
	General castes	SC/ST castes	General Castes	SC/ST castes
6 - 11	94.29	88.24	84.21	65.85
12 - 14	92.31	80.00	66.67	42.00
15 - 18	88.89	61.11	64.00	46.67
19 - 23	41.67	15.91	14.81	2.50
All Age Groups	72.36	56.83	58.82	38.46

4.1.5 Differences among Income Groups

Economic condition of the family is an important factor influencing the aspiration and ultimate educational attainment among its members.⁵ The Education Commission (1964-66) noted that children from poor

⁵ Coleman J.S., Equal Schools or Equal Students, The Public Interest, 4 Summer, 1966, pp.70-75; Radford W., School Leavers in Australia: (1959-60), Melbourne, Australian Council for Education; Shah V.P., Patel T. and Sewell W.H., Social Class and Educational Aspiration in an Indian Metropolis, University School of Social Science, Gujarat University, 1971.

families do not have the same chances of education as those who come from richer ones. Therefore, the children of the poor families are mostly out of the school system from the very outset and majority of them are illiterate. One of the reasons for this phenomenon is that the utilisation of educational opportunity is mainly dependent on the individual's capacity of bearing the educational costs.⁶ It is for this reason that the benefit of education system, especially secondary and higher education is found mostly going to the economically well-to-do population of the society.⁷

We have made an attempt to find out the relative position of the pattern of enrolment among different per capita income groups on the basis of our sample study. The enrolment rate of school going age population are related with per capita income groups of households (Table 4.6).

⁶ Meegman Jacob, Public Expenditure in Malaysia. Who Benefits and Why? New York, Oxford University Press, 1979.

⁷ Maik, J.P., op. cit., 1975, p.39.

Table 4.6 : Enrolment Rates of Rural-Urban
Population by the Levels of PCI

P.C.I. of House- holds	Rural			Urban			Total		
	Male	Fe- male	Total	Male	Fe- male	Total	Male	Fe- male	Total
Below									
1.5	33.34	18.52	26.67	61.12	41.18	51.43	43.14	27.28	35.79
1.5-2.5	65.91	20.00	49.28	64.00	48.89	56.85	64.90	38.58	53.66
2.5-3.5	62.07	53.34	59.09	81.49	42.86	68.30	71.43	48.28	63.53
3.5-4.5	58.07	46.16	54.55	71.43	75.00	73.34	62.23	62.07	62.17
4.5-6.0	50.00	83.34	66.67	71.43	77.78	75.00	65.00	79.17	72.73
6.0+	50.00	100.0	66.67	81.82	72.23	75.87	76.93	73.69	75.00
Total	55.17	34.48	47.41	70.15	57.82	64.12	62.37	48.38	56.28

Across six per capita income groups, starting with less than Rs.1500 and ending with Rs.6000 and more, in which the sample households are divided, we find a consistent positive relationship between PCI levels and enrolment rates. At the lowest PCI level 36 per cent children are enrolled and at the highest level the figure reaches 75 per cent. Thus the utilisation of education is clearly seen associated with

the level of per capita income of ^{the} family. This relationship is consistently observed both in rural and urban areas. In the rural areas the enrolment is low at 26 per cent at the lowest PCI group, but increases consistently with PCI and goes upto 67 per cent at the highest PCI level. In urban areas the corresponding increase is from 51 per cent to 76 per cent with increase in PCI levels.

The relationship also holds, even to a more significant extent, in the case of enrolment of girls. The range of consistent variation of enrolment with PCI is lower in the case of boys, from 43 per cent at the lowest to 77 per cent at the highest PCI level. But in the case of girls it is as low as 27 per cent at the lowest but rises steeply with increase in PCI and reaches 74 per cent at the PCI level of Rs.6000 and above. This greater steepness of rise in enrolment of girls with every increase in PCI level is equally true in rural and urban areas, but is more marked in the case of rural areas.

Analysing the proportion of enrolment among the SC/ST group of population according to the PCI

levels of households we find that the relationship is somewhat diffused. Of course, the relationship is more consistent in their case than in the general castes in-so-far-as, the highest enrolment rate among the SC/ST is found in the highest PCI groups, while in the case of general castes, enrolment in the highest PCI group (Rs.6000 and above) is lower than in the PCI groups of Rs.4500-6000 and Rs.2500-Rs.3500, the highest being in the case of the latter PCI group. In the case of SC/ST, enrolment rates are lower in the PCI range of Rs.2500-Rs.3500 than in the immediate lower PCI group. Yet, overall the relationship holds - enrolment rate rises with PCI. In fact, the influence of income level on enrolment comes out more sharply in the case of SC/ST than the general castes, particularly when we consider the enrolment rates for male and females and rural and urban areas separately.

4.2 Drop-Outs

Drop-outs from educational system occur because of several socio-economic constraints and also in the absence of educational facility within easily accessible

Table 4.7 : Enrolment Rates of General Castes and SC/ST Population by Level of PCI

PCI of Households (in '000 Rs.)	General Castes			SC/ST		
	Male	Female	Total	Male	Female	Total
Below 1.5	59.83	38.10	47.37	35.30	17.40	28.07
1.5 - 2.5	71.43	36.37	59.38	63.02	35.99	52.28
2.5 - 3.5	90.33	60.00	80.44	48.00	35.72	43.59
3.5 - 4.5	61.77	70.59	64.71	63.64	50.00	56.53
4.5 - 6.0	66.67	80.00	73.69	50.00	75.00	60.77
6.0 +	85.72	61.54	70.00	66.67	100.00	83.34
Total	71.88	58.77	66.23	54.31	39.83	47.96

distance.⁸ Almost all the studies which have been carried out during the recent past revealed that the poor socio-economic background prevents utilisation of educational facilities upto the desired level.⁹

⁸ Tewari P.N., An Investigation into the Factor Responsible for the Low Achievement of Above Average Intelligent Students, M.Ed. Dissertation, Rajasthan University, 1965.

⁹ Naik, J.P., op. cit., 1971, pp.11-12.

Therefore, a sizeable number of students drop-out from the schools without completion of particular level of education standard or after completion of only the school level of education.¹⁰ Moreover, non-availability of different educational facilities is also a factor affecting the drop-out of population before attaining the desired educational level.¹¹

In our study the assessment of drop-outs among different castes, sex, rural-urban and PCI groups of population has been carried out by using information relating to such persons in sample households who discontinued their study after enrolment. Drop-out from various educational levels is examined by taking into account the population which was enrolled in primary education and the proportion who have reached in middle, secondary and higher level of education.

¹⁰ UNESCO, Wastage in Education, UNESCO, Paris, 1969, p.10.

¹¹ Naik, J.P., op. cit., 1971, p.13.

Overall, of the 100 pupils enrolled in class I about 30 per cent are reported as having reached the stage of post-secondary, higher education. Those dropping out before completing primary education constitute a small proportion (2.55 per cent) of those enrolled. But another 17 per cent discontinue after completing primary school but before finishing middle school. About 15 per cent leave in between middle and higher secondary school, but a large proportion (35 per cent) drop-out either after the secondary education or during the course of college education.

Table 4.8 : Rates of Drop-out among Rural and Urban Population

Level of Education	Rural	Urban	Total
Pre-Primary	2.66	2.48	2.55
After-Primary	28.72	8.87	16.81
After Middle	21.28	10.99	15.11
After Secondary	35.11	35.46	35.32
Total	87.77	57.80	69.79

4.2.1 Rural-Urban Differences

Drop-outs follow similar pattern in the rural and urban areas, but the extent of drop-outs differs significantly between them. The proportion of those enrolled in class I, reaching upto the state of higher education is found much less in rural areas (12 per cent) as compared to urban areas (42 per cent). Drop-outs at the pre-primary and post-secondary levels show similar extent both in rural and urban areas, but the incidence of drop-outs is much higher in the rural than in the urban areas at the post-primary and pre-secondary level.

4.2.2 Male-Female Differences

Further the drop-out rates of female are found relatively higher than the males after the completion of primary education only, otherwise the females are found to drop-out from the study at lower extent than their male counterparts at most of the educational levels. And finally equal proportion of males and females are found reaching at higher levels of education.

Table 4.9 : Rates of Drop-out among Males and Females

Level of Education	Male	Female
Pre-Primary	2.85	1.95
Primary	13.92	23.38
Middle	17.09	13.64
Secondary	37.03	30.52
All Levels	70.89	69.49

4.2.3 General Castes and SC/ST Differences

Analysis shows that the drop-outs at different educational levels are significantly higher among SC/ST as compared to the general caste population. The extent of highest differentials in drop-out data between the population groups of SC/ST and general castes are noticed after the completion of primary and middle level education while at pre-primary and after the secondary level of education the differentials are very marginal. Finally 18.75 per cent from SC/ST and 39.54 per cent from general caste groups found reaching at the higher level of education.

Table 4.10 : Rates of Drop-out among General Castes and SC/ST Population

Level of Education	General Castes	SC/ST
Pre-Primary	2.28	2.88
Primary	11.41	23.56
Middle	12.93	17.79
Secondary	33.84	37.02
Total	60.46	81.25

Table 4.11 : Rates of Drop-out among Different Income Groups of Population

(Rs. in thousands)

Level of Education	Below 1.5	1.5 - 2.5	2.5-3.5	3.5-4.5	4.5-6.0	6.0+
Pre-Primary	5.13	4.00	3.13	2.20	-	-
Primary	20.51	23.20	19.79	14.29	8.93	7.94
Middle	28.21	20.00	14.58	13.19	5.36	9.52
Secondary	43.59	41.60	35.42	37.36	28.57	20.63
Total	97.44	88.80	72.92	67.03	42.86	38.10

4.2.4 Differences among Income Groups

The PCI levels of individual family is found negatively related with their rates of drop-out. As the PCI of the family increases, the drop-out rates tend to decline. The highest differentials in drop-outs at different PCI ranges are noticed between the lowest and highest PCI groups, however, the differentials are noticed at lower rate among the second, third and fourth lowest PCI ranges, at different educational levels.

Chapter V

EDUCATION AND EMPLOYMENT

In the preceding chapter it was observed that the utilisation of educational opportunities varies significantly among population groups — rural-urban, male-female, castes and different income ranges. Educational opportunities were generally better availed by men, those living in urban areas belonging to general castes, and those with higher per capita income. We shall in this chapter try to analyse the effects of education on the levels of employment and earnings of different groups with similar levels of education.

Employment can be defined as the situation in which remuneration in cash or kind is received in exchange for active, direct, personal participation in the production process.¹ The employment opportunity for different levels of educated labour force depends on a number of economic variables, their growth pattern, and supply and demand conditions of labour force.

¹Mauly Jean, Some Remarks on the Concept of Employment and Unemployment, Geneva, , February 1972, p.155.

Keynsian² method for increasing employment opportunities is indicated through increase in aggregate demand, excess capacity of plants, increasing technical knowledge and investment on infrastructure. Unemployment is a condition of labour market in which the supply of labour power is greater than the number of available openings³ and employment problem is primarily a problem of inadequate income only secondarily one of insufficient work opportunities. Considering the income/^{approach} the Colombia report⁴ possess to define the employment problem as a situation where people who are either employed or unemployed but who are in any case receiving a lower income than is required to be provided by what is judged to be a minimum standard of living in that country. It is clear that this definition includes all kinds of unemployment considered as visible and invisible unemployment. As, the visible unemployment relates to such individuals who are without work and actually searching

²Keynes, J.M., The General Theory of Employment, Interest and Money, Macmillan, London, 1906.

³Blaug, M., Education and the Employment Problem in Developing Countries, ILO, Macmillan, London, 1974, pp.2-3.

⁴ILO, Towards Full Employment : A Programme for Colombia, Geneva, 1970.

employment at the ongoing wage rates in the reference period and a certain volume of visible unemployment may be accompanied with a much larger volume of invisible unemployment.⁵ The other condition of unemployment is characterised as 'under-employment' where people, working both part time and full time are not efficiently utilised, this is an approach related to productivity link unemployment.⁶ In summing up the various concepts of unemployment, it can be considered that the unemployed are those who are seeking employment on a given day and those are not actually employed but available to take a job if offered one.⁷ The Committee of Experts on Unemployment observed that a person who is unemployed throughout a particular week and does not expect to take up some gainful work in future, even when he is in search of or available for it can appropriately be deemed really unemployed.⁸

⁵ Blaug, M., op. cit., 1974, p.3.

⁶ Ridkar, Ronald, Employment and Unemployment in Near East and Asian Countries : A Review of Evidence and Issues, in Ronald G.R. and Harold, L. (ed.) Employment and Unemployment Problems of the Near East and South Asia, Vikas Publishing House, Vol. I, 1971.

⁷ Ridkar, Ronald, Ibid, 1971, pp.274-276.

⁸ Government of India, Report of the Committee of Experts on Unemployment Estimates, Planning Commission, New Delhi, 1970, p.17.

In our analysis the term unemployed relates to those who are seeking employment and fail in the working age group (15 to 60 years). And the labour force includes all the work force and the unemployed which are seeking employment. Thus in the process of estimation of work force we have included the entire working population whether their employment status at the time of survey was either permanent, temporary or casual. A similar criterion is also adopted by C.S.O.⁹ and in N.S.S. 11th, 12th, and 13th rounds. According to NSS a person having some gainful employment however nominal it may be on the reference day or on at least one day during the reference week is treated as employed.

5.1 Employment and Unemployment

It is believed that with rising educational levels and productive efficiency employment opportunities with better remuneration tend to increase. However, the individuals with lower level of education have wider

⁹C.S.O., Standards of Surveys on Labour Force, Employment and Unemployment, Department of Statistics, Government of India, New Delhi, 1961, pp.80-83.

range of occupational choices whereas the individuals with relatively higher education prefer to take few specific kinds of occupations. Thus the employment opportunities in general are higher for individuals with lower level of education as compared to individuals with higher education. Therefore the incidence of unemployment is lower among the less educated or illiterate as compared to higher educated.

5.1.1 Male-Female Differences

From the survey conducted by us it was revealed that 93 per cent population consisting of 94.43 per cent males and 87.72 per cent females out of the total labour force were employed. Incidence of unemployment was found to be the highest among those with secondary school education (14.57 per cent) followed by graduates and post-graduates (9.47 per cent). The entire female labour force with below middle education is in employment whereas of the male labour force with below primary and middle education 96.75 per cent and 98.08 per cent respectively is employed. On the other hand, of the females with secondary and higher education only around

Table 5.1 : Employed as Percentage of Labour Force in Rural and Urban Areas

Level of Education	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Below Primary	98.94	100.00	99.42	89.66	100.00	90.63	96.75	100.00	98.03
Middle	100.00	100.00	100.00	94.12	-	94.12	98.08	100.00	98.25
Secondary	88.89	100.00	90.00	92.73	50.00	82.09	87.50	69.23	85.47
Higher	95.00	66.67	95.45	97.47	68.75	89.17	96.97	68.57	90.23
All Levels	96.37	98.89	97.17	92.37	67.44	87.67	94.43	88.72	92.94

69 per cent are in employment, while among males with similar levels of education over 90 per cent are employed. It appears that females with relatively higher level of education have less opportunity to participate in employment as compared to less educated females. These variations in the participation in employment of females with different educational levels may be due to the well recognised fact that females from relatively low PCI groups avail mostly the primary and middle level

of education.¹⁰ Due to their poor economic conditions they enter the labour market for supplementing the household incomes rather than go in for higher education. On the other hand, women are seen less likely to get gainful employment than men once they attain secondary or higher level of education. Unemployment among women with secondary and higher education was found to be around 31 per cent as against less than 10 per cent among men with similar educational attainments.

5.1.2 Rural-Urban Differences

The rural economy is based on traditional agriculture and to some extent on household type economic activities. These activities are neither capable of providing full time employment opportunity to the labour force in the area nor can pay reasonable amount of earnings to the labour force which are engaged in them. Thus the rural population which is considered to be a back-bone of the economy is a victim of several

¹⁰ As we noticed/earlier chapter in the the female from lower PCI groups either do not appear in educational system or who fortunately enter in educational utilisation drop-out their study either after the completion of primary or middle education.

kinds of unemployment problems.¹¹ However, in urban areas, labour force have better employment opportunities in different modern sectors of the economy which also provide better remunerative jobs. However, the rural labour force with lower level of education have employment opportunity in both rural and urban areas, although they suffer from the conditions of under-employment or disguised unemployment particularly in rural areas. Therefore, the incidence of unemployment among rural population with low level of education or illiterates is much lower than the relatively better educated in rural areas, and also than workers in urban areas.

Analysis of our sample data showed that 97 per cent rural labour force is engaged in employment as compared to 88 per cent of urban labour force. Thus the incidence of unemployment is only about 3 per cent among the rural workers as compared to 12 per cent among the urban workers.¹² This pattern of differences

¹¹ Marshall, R., The Economics of Discrimination : A Survey, Journal of Economic Literature, 12-13 Sept., 1954, p.857.

¹² Such a pattern of differences is observed in NSS 32nd Round, Govt. of India, Controller of Publication, New Delhi.

obtains not only in aggregate, but also for workers as well as for male and female workers separately. But at the higher level of education unemployment among females is somewhat higher (33 per cent) in rural areas than among similarly educated women in the urban areas (31 per cent).

5.1.3 Differences among General Castes and SC/ST

As mentioned earlier, the Scheduled Castes/Tribes population is categorised as a socio-economically disadvantaged group. Therefore, special provision have been laid down to protect them by way of reservation policy in education and employment to improve their socio-economic conditions. Our findings probably reflect the result of these measures to the extent that a larger percentage of workers belonging to these castes with different educational attainments are in employment as compared to the similarly educated persons from other social groups. Thus while incidence of unemployment is about 10 per cent among the workers from general castes, only 4 per cent of the SC/ST workers are unemployed. Unemployment rate among the

general castes is lower, in fact zero, in the case of workers with upto middle level of education, but is 22 per cent among those, with secondary and 12 per cent among those with higher education. Among SC/ST, 95 to 97 per cent are employed irrespective of their educational levels.

Table 5.2 : Employed as Percentage of Labour Force from Different Castes

Level of Education	General Castes	SC/ST
Upto Below Primary	100.00	96.80
Middle	100.00	96.97
Secondary	77.97	94.83
Higher	87.88	94.86
All Levels	90.35	96.02

5.1.4 Differences among Income Groups

It is expected that from extremely low income levels of households all the available manpower is likely to participate in the economic processes to generate incomes so as to add something towards the

earnings of their households.¹³ Similarly it is also expected that people with low family income cannot bear the cost of higher education and their economic conditions force them to get engaged in economic activities rather than to continue their education. The need for income is thus usually seen as inversely related to the family income of the individuals.¹⁴ On the other hand, the population with higher incomes do not have such compulsions and they can avail educational opportunities as desired. They spend significantly higher duration of time in availing education which lowers down their participation rate in labour force. Even after utilisation of education they occasionally devote higher time in search of better and more remuneration employment opportunities. In some cases they prefer to remain unemployed rather than to join low paid occupations therefore the incidence of unemployment could be higher among the labour force with higher incomes as compared to lower income groups.

¹³ Sinha, J.N., The Indian Working Force, Its Growth and Composition, Mimeograph No.11, Census of India, 1961.

¹⁴ Bowen W.G. and Finegan T.A., The Economics of Labour Force Participation, Princeton University Press, 1969, pp.22-24.

If we examine the inter-income group differences for each level of education separately, the situation becomes more confusing. For instance all those with less than primary level of education from the lowest income range are employed, probably they could not afford to remain unemployed, but all of similarly educated workers from the highest PCI range are also employed. Workers with middle level of education are all employed in higher income ranges, but 17 per cent of them belonging to the lowest income range are unemployed. Incidence of unemployment is found relatively very high in the lowest and highest PCI range among those with secondary education; and of those with higher education, incidence of unemployment is higher among the lowest two PCI ranges. On the whole, irrespective of whatever the aggregate figures show, it is seen that better educated among the poorer groups have lower chances of securing employment than the similarly educated from the higher income groups.

Our analysis however, reveals that such a relationship is not very consistently observed except to the extent that the highest unemployment (11 per cent)

prevails among the households in the highest PCI (above Rs.6000) group. The lowest proportion of unemployed (8 per cent) is found in the middle PCI groups (Rs.3500 to Rs.4500). In all other PCI groups unemployment ranges between 6 to 9 per cent and the variation is not consistently related with PCI ranges.

Table 5.3 : Employed as Percentage of Labour Force from Different Income Groups

(Rs. in thousand)

Level of Education	Below 1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-6.0	6.0 +
Upto Primary	100.00	98.85	95.46	96.88	66.67	100.00
Middle	83.33	100.00	100.00	100.00	100.00	100.00
Secondary	69.23	88.24	87.50	95.65	92.86	62.50
Higher	66.67	64.71	88.00	100.00	96.30	92.50
All Levels	92.21	93.04	91.46	97.80	93.62	88.89

5.2 Some Other Aspects of Access to Employment Opportunities

5.2.1 Age at Searching Employment

Generally, the age at which a person starts seeking employment is seen to be directly related with

the economic conditions of his household including the dependency ratio.¹⁵ The highly elastic demand for income among low income families compels their family members to join the labour force at an early age whereas those in higher income groups have no such economic compulsion and start seeking employment at a comparably higher age. Similarly the age pattern for seeking employment varies with the pattern of educational attainments. People with relatively low level of education enter in the labour market at lower age as compared to people with higher education. Thus there is a substitutionary relationship between the educational pursuits and age of seeking employment. It is, therefore, logical to find, as we see in our sample data (Table 5.4), that those with less than primary level of education start seeking employment at the age of 15 years and as we proceed to middle, secondary and higher levels of education, average age of entry into labour force increases to 16, 18 and 21 years. These figures are true both for the rural and urban areas as well as for men and women workers.

¹⁵ Bowen W.G. and Finegan T.A., op. cit., 1969, p.4.

Table 5.4 : Average Age at Seeking Employment of Rural-Urban Population by Level of Education

Level of Education	(Age in Years)								
	Rural			Urban			Total		
	Male	Fe- male	Total	Male	Fe- male	Total	Male	Fe- male	Total
Upto Primary	14.53	15.79	15.10	15.15	16.00	15.24	14.67	15.80	15.1
Middle	15.74	15.50	15.71	16.25	-	16.25	15.90	15.50	15.7
Secondary	18.05	17.40	17.98	17.51	18.50	17.59	17.75	17.89	17.8
Higher	20.64	19.50	20.71	20.39	21.32	20.60	20.48	21.17	20.8
All Levels	16.16	15.96	16.10	18.35	20.38	18.64	17.19	17.07	17.1

Yet, the average age to enter the labour market is 16 years in the rural and 19 years in urban area for the reason that more of the urban workers enter labour market after completing higher stages of education. The average age to enters the labour market is the same (17 years) both for men and women; but while this figure is higher (20) for women than for men (16 years) in urban areas, the women are found to enter labour force somewhat earlier than men in the rural

areas. The nature of work that women perform and differences in their educational levels go to explain these differences between the rural and urban areas.

The proposition that the members of socio-economically disadvantaged groups enter labour force at an earlier age than others, due both to the economic compulsions and inability to pursue education further is well supported by our findings regarding the average age at which a SC/ST and those with lower per capita household income start seeking employment as compared to the corresponding figures for higher castes and higher income groups. Average age of SC/ST population entering the labour market for seeking employment is about 17 years whereas that for the general caste workers is 18 years.

When we consider the average age at entry into labour force for persons from different PCI groups, a consistent positive association is observed between the level of per capita income and the average age at which a person starts seeking employment. Persons from the household with PCI level of less than Rs.1500 per annum start looking for employment at the average

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**Table 5.5 : Average Age at Seeking Employment of
Different castes by Level of Education
(Age in Years)**

Level of Education	General Castes			SC/ST		
	Male	Female	Total	Male	Female	Total
Upto						
Primary	14.58	15.20	14.86	14.71	15.93	15.16
Middle	15.55	15.33	15.52	16.13	16.00	16.13
Secondary	17.57	18.00	17.60	17.92	17.80	17.91
Higher	20.43	21.28	20.61	20.59	20.83	20.64
All Levels	17.72	17.22	17.60	16.67	16.61	16.66

age of 15 years, the average age at entry into the labour market increases as we proceed to higher levels of PCI household income, so that those from the highest PCI level (Rs.6000 and more) start looking for employment at an average age of 20 years.

**Table 5.6 : Average Age at Seeking Employment of
Different Income Groups by Level of
Education**

(PCI Groups of Households('000Rs.))						
Level of Education	Below 1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-6.0	6.0 +
Upto						
Primary	14.64	15.34	15.09	15.16	16.33	16.00
Middle	15.25	16.00	15.90	15.57	16.25	17.00
Secondary	17.11	17.86	17.65	18.09	17.71	17.60
Higher	18.00	19.33	20.96	20.50	20.58	21.00
All Levels	15.04	16.26	17.64	17.27	19.09	20.06

5.2.2 Waiting Period

The concept of waiting period used by us relates to the time period spent in search of employment. In other words, it indicates the period of unemployment before getting work for the first time. Period of waiting between discontinuing study or searching employment and finding employment can be explained by job search hypothesis or the rationing hypothesis.¹⁶ According to job search hypothesis, job seekers attach a high value to shopping around for the best job. The rationing hypothesis implies a rigid structure of wages, for institutional reasons, which is insensitive to the excess supply of labour produced by the educational system. Thus there could be extent of differentials in the waiting period of labour force with similar level of education among income groups, sex, castes and labour force between one location to another, depending upon number of jobs available for different levels of educated labour force and number of labour force falling in particular educational groups.

¹⁶ Mazumdar Deepak, op. cit., 1981, pp. 247-248.

The analysis reveals that on an average the labour force devote around 6 months in search of employment and it consists 0.61 years for males and 0.38 years for females. The highest duration of waiting period for employment is noticed among the labour force with secondary education followed by higher, middle; in both cases it is almost one year. Those with no or below primary level of education, on the other hand wait the least, say around 35 days, and those with middle level of education for about 190 days. Morse¹⁷ in his study also finds similar kinds of results in case of unemployment pattern before finding employment among different levels of educated labour force in almost all the developing countries. He cites that the higher waiting period for employment of population with secondary and higher education may be due to the increase in the stock of labour force having these educational levels. Turnham¹⁸ also finds that the higher incidence of unemployment among secondary and higher school leavers.

¹⁷ Morse, D.A., The World Employment Programme in International Labour Review, Vol.97, ILO Geneva, 1968.

¹⁸ Turnham David, The Employment Problems in Less Developing Countries : A Review of Evidence; OECD Development Centre, Paris, 1971.

So-far-as the differences between the rural and urban areas are concerned, it can be argued that the majority of rural population has the opportunity to share work with their family members on their farms any time they are available for work whereas this kind of work arrangement is difficult to obtain in urban areas.¹⁹ Thus the probability of remaining unemployed before finding employment is higher in respect to urban population as compared to rural population. This is seen very clearly in the results of our analysis : rural worker on an average waits for about 4 months before getting work, while an urban worker has to wait for about 10.5 months. The waiting period for urban workers is significantly higher than for rural workers at different levels of education, upto secondary but a college educated rural worker has to wait longer than a similarly educated urban worker. This is so because while the less educated or uneducated starts participating in their household activity in the rural areas soon-after they leave school, the better

¹⁹Turnham, David, Ibid, 1971, p.43.

educated rural worker mostly goes to urban area for a job where he has a disadvantage in comparison with the similarly educated urban job seeker.

It is for the similar reasons we find, that (i) waiting period for women is much smaller than for men; in rural areas, but much higher than the men in urban areas; (ii) women with no or little education do not have to wait at all before starting work; but those with secondary or higher level of education wait

Table 5.7 : Average Waiting Period for Employment of Rural-Urban Population by Level of Education

Level of Education	(in Years)								
	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Upto Primary	0.12	N11	0.06	0.29	N11	0.26	0.15	N11	0.09
Middle	0.41	N11	0.37	1.13	N11	1.13	0.64	N11	0.59
Secondary	0.81	0.40	0.77	1.12	1.75	1.16	0.98	1.00	0.98
Higher	1.32	1.50	1.33	0.69	1.45	0.86	0.81	1.46	0.94
All Levels	0.44	0.06	0.32	0.69	1.34	0.88	0.61	0.38	0.55

for a period much longer than the men, in urban areas but much less than men in rural areas; and (iii) women with higher education have to wait longer than men both in rural and urban areas. Thus there are clear inequalities in finding employment opportunity among the individuals living in different areas despite having similar levels of education. The most disadvantaged groups of population with respect of time spent under the conditions of unemployment before finding employment is found among rural population having attained higher education and urban workers with secondary education.

The average waiting period for employment in relation to SC/ST population is 0.49 years which is relatively less than the general caste population (0.61 years). This is partly due to the lack of economic capacity to wait and, therefore, the tendency to accept whatever job is available at the earliest; and partly due to the easier access to jobs due to reservation in the case of SC/ST job seekers. However, it is noticed that the waiting period of SC/ST population with middle and secondary education is comparably

higher than the general caste population. It seems that the advantage of reservation is effective for them only with higher level of education; and at the lowest level of education, they get engaged in household or traditional activities without waiting for any other employment.

Table 5.8 : Average Waiting Period for Employment of Different Castes by Level of Education

Level of Education	(in Years)	
	General Caste	SC/ST
Upto Primary	0.11	0.07
Middle	0.30	0.81
Secondary	0.95	1.02
Higher	0.96	0.88
All Levels	0.61	0.49

Thus the protective policy of government in the share of employment for SC/ST population have led to the reduction in the duration of time spent in searching employment in the case of those who have

availed of higher education. However, this consideration does not seem applicable for population with primary education.

The proposition that population with low income tends to take up earliest available employment as they cannot afford to wait and remain unemployed whereas those with higher levels of income wait till they get employment of their choice in terms of status and earnings, and remain 'voluntarily unemployed' is validated by our findings. The waiting period for employment of lowest PCI groups to upper PCI groups of population averages about 3.5 months; the period increases consistently with every higher PCI range and reaches about 9.5 months for those in the highest (Rs. 6000 and more) per capita income range. This relationship, is, however, not found to hold if we take different levels of education separately. At the lowest (below primary) level of education waiting period generally rises with income levels, but at the middle level of education, it consistently declines with income levels. Therefore it looks that a complex set of factors influence the waiting period at the

disaggregated educational categories. At the primary level and to some extent at the higher level, the waiting capacity hypothesis seems to hold while at the middle and to some extent, at the secondary level, the 'inaccessibility to jobs' hypothesis is found valid.

Table 5.9 : Average Waiting Period for
Employment of Different Income
Groups by Level of Education

Level of Education	Waiting period (in Years) and PCI groups of households (in Rs'000)					
	Below 1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-6.0	6.0 +
Upto						
Primary	0.06	0.12	0.14	0.03	0.33	Nil
Middle	0.75	0.90	0.50	0.36	0.25	Nil
Secondary	1.44	0.93	0.89	0.91	1.11	0.80
Higher	0.75	0.75	0.73	1.23	1.00	0.92
All Levels	0.29	0.44	0.58	0.60	0.73	0.79

5.3 Occupational Pattern of Employment

Empirically, occupations existing in different economic sectors are numerous. However, the list of occupations available in rural areas is comparably smaller than in urban areas. From the point of view of the present study we have classified various occupations into six broad categories. Examining the occupational pattern of different educational groups of workers, we can assess the extent of equality or inequality among different socio-economic groups in the opportunity of similar kinds and nature of occupations.

Conceptually, people with higher level of education can be considered to have opportunity of better remunerative occupations as compared to people with low level of education. Labour force with similar levels of education but belonging to different socio-economic backgrounds do not necessarily have equal chances of getting similar kinds of employment. Institutional theories of discrimination suggest that significant differentials in the opportunity in labour

market prevail due to socio-political factors like sex, class, and race.²⁰ On the other the neo-classical theories of discrimination of Becker,²¹ Marshall,²² Edgeworth,²³ Thurow,²⁴ Davis and Morrall²⁵ highlight that the discrimination in the labour market is practised by employers on some rational basis. Studies by Freeman²⁶ and Kain,²⁷ suggest that discrimination in labour market exists

²⁰ Robinson, D., Local Labour Market and Wage Structures, Grower Press, London, 1970.

²¹ Becker, G.S., The Economics of Discrimination, Chicago University Press, IInd Edition, 1971.

²² Marshall, R., The Economics of Racial Discrimination : A Survey, Journal of Economic Literature, 12/3, 1974, pp.860-862.

²³ Edgeworth, F.Y., Equal Pay to Men and Women, Economic Journal, Vol.32, 1922, pp.431-457.

²⁴ Thurow, L., Generating Inequality, New York, Basic, 1975.

²⁵ Davis T.R. and Morrall J.F., Evaluating Educational Investment, Lexington Mass, Heath, 1974.

²⁶ Freeman, R.B., Changes in the Labour Market for Black Americans, 1948-72, Brookings Papers : Economic Activity, 1, 1973, pp.67-120.

²⁷ Kain, J.F. (ed.), Race and Poverty : The Economics of Discrimination, Englewood Cliffs, New Jersey, Prentice Hall, 1969.

sometimes because of the emergence of dominant groups. The employers estimate maximisation in their profit and act on their own interest within the existing socio-political arrangements while recruiting the labour force.

In India, occupational discrimination is pronounced against low income groups, females and SC/ST population. The proportion of these groups of population is low in different levels of education and also in different occupations. However, the low income groups and SC/ST population mainly participate in low earning occupations because they mostly avail only elementary level of education. The population from this group are able to avail higher education are not able to take up better earning occupations due to their poor socio-economic background and their poor quality of education. Similarly discrimination against women is largely a result of social values which tend to place them in a secondary position under the subjugation of men. Mobility of women is also limited which further reduces their participation

in different occupations. A small proportion of them who enter the labour market for seeking employment also receive discriminatory treatment from employers. They are not considered fit for certain kinds of occupations due to notions regarding capacity as workers and to their efforts to minimise their costs.²⁸ Thus due to one reason or another a very small proportion of women find employment in a few selected occupations which reduce their supply price not only in these occupations but also throughout the economy.²⁹

We find some evidence to suggest that urban born, men, higher castes and those with higher incomes have an edge over the rural born, female, lower castes and low income groups in obtaining employment in occupations with higher status and better earnings. Most people in rural areas, particularly those with little education, in any case are engaged in agriculture either as cultivators or agricultural labourers,

²⁸ Mukhopadhyaya, S., Women Workers in India : A Case of Market Segmentation in Women in the Indian Labour Force, ARTEP, Bangkok, 1981, pp.94-117.

²⁹ Edgeworth, F.Y., op. cit., 1922, pp.431-457.

occupations which are virtually not existant in urban areas. Most urban workers without having secondary or higher education, on the other hand they are also engaged in low status activities such as casual labourers, menial jobs in establishments or own account worker. Some difference, however is seen between rural and urban workers at higher levels of education. Thus, of the urban workers with higher education, 32 per cent are in managerial/supervisory position and 66 per cent in clerical positions, the corresponding figure, for rural workers with similar education are 29 and 57 per cent. It must be noted, however, that this difference is not very high suggesting, therefore that higher education could be instrumental in reducing the occupational disadvantage of rural workers.

As the opportunities for non-agricultural work are limited particularly for women in the rural areas, a much larger proportion of women than of men with low or little education are found engaged in agriculture. Women workers even with secondary education are mostly engaged in agriculture while majority of

Table 5.10 : Occupational Classification of Workers by Level of Education (Per cent)

Level of Education	Cultivators		Agri. & Non-Agri. Labourers		Supervisory		Ministerial		Lower Cadre		Self-employed		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Upto Primary	42.02	85.00	25.21	15.00	-	-	-	-	8.40	-	24.37	-	100.00 (119)	100.00 (80)
Middle	40.00	60.00	2.00	40.00	-	-	4.00	-	26.00	-	28.00	-	100.00 (50)	100.00 (5)
Secondary	5.49	55.56	1.10	-	-	-	29.67	33.33	38.46	-	25.27	11.11	100.00 (91)	100.00 (9)
Higher	-	-	-	-	30.21	37.50	64.58	62.50	2.08	-	3.13	-	100.00 (96)	100.00 (24)
All Levels	21.07	64.41	8.99	11.86	8.15	7.63	25.56	15.25	16.25	-	19.38	0.85	100.00 (356)	100.00 (118)

Note : Figures in brackets indicate the actual number of male-female workers in which each level of education.

men with similar education are employed in non-agricultural sector, as clerks and peons etc. Among those with higher education, however, women seem to have similar chances as men workers in managerial/supervisory positions. In fact, they seem to have an edge over male workers in managerial/supervisory positions. Thus, here again, as in the rural-urban comparison, higher education alone seems capable of effecting equality of opportunity among males and females.

We find similar trends towards equalisation of occupational opportunities through education when we compare the SC/ST groups with general castes. In fact the SC/ST groups are found to start getting better advantage of education even at middle and secondary level of education, in-so-far-as a much higher proportion (42 per cent) of SC/ST workers with these levels of education are able to obtain clerical jobs than workers of other caste with similar education (34 per cent). At the higher level of education workers from both the caste groups are more or less equally concentrated in the supervisory and ministerial jobs.

Table 5.11 : Occupational Classification of Workers in Rural and Urban Areas (Per cent)

Level of Education	Rural						Urban							
	Cultivators	Agri. & Non-Agri. Labourers	Managerial/Supervisory	Ministerial	Lower Cadre	Self-employed	Total	Cultivators	Agri. & Non-Agri. Lab-ourers	Managerial/Supervisory	Ministerial	Lower Cadre	Self-employed	Total
Upto Primary	69.41	16.41	-	-	3.53	10.59	100.00 (170)	-	48.28	-	-	13.79	37.93	100.00 (29)
Middle	58.97	7.69	-	2.57	12.82	17.93	100.00 (39)	-	-	-	6.25	50.00	43.75	100.00 (16)
Secondary	22.22	2.22	-	20.00	31.11	24.44	100.00 (45)	-	-	-	38.18	38.18	23.64	100.00 (55)
Higher	-	-	28.57	57.14	9.53	4.76	100.00 (21)	-	-	32.32	65.66	-	2.02	100.00 (99)
All Levels	54.91	11.64	2.18	8.00	9.82	13.45	100.00 (275)	-	7.03	16.08	43.72	16.58	16.58	100.00 (199)

Note : Figures in brackets indicate the actual number of workers in each educational level.

The equalising effect noticed between rural-urban, male-female and general castes - SC/ST groups, however, seem to get offset once we look at the occupational structure of employment of workers belonging to different ranges of per capita income households. At lower levels of education, workers from all income groups are more or less equally concentrated in the low status activities like cultivating, and casual labour etc. With acquisition of secondary level of education, most workers get employment as employee status, but within that the proportion of low cadre jobs is higher among workers with low household incomes, while that of clerical cadres is low for them, but it steeply increases as we proceed to higher household income levels. Workers with higher education, are mostly employed in ministerial and supervisory categories, but the proportion of the former declines and that of the latter increases with increasing levels of household incomes.

Table 5.12 : Occupational Classification of Different Castes of Workers

(Per cent)

Level of Education	General Castes							SC/ST						
	Cultivators	Agri. & Non-Agri. Labourers	Managerial/Supervisory	Ministerial	Lower Cadre	Self-employed	Total	Cultivators	Agri. & Non-Agri. Labourers	Managerial/Supervisory	Ministerial	Lower Cadre	Self-employed	Total
Upto Primary	64.94	23.38	-	-	2.60	9.09	100.00 (77)	55.74	19.67	-	-	6.56	18.03	100.00 (122)
Middle	50.00	8.33	-	-	6.35	33.33	100.00 (24)	35.48	3.23	-	6.45	35.48	19.35	100.00 (31)
Secondary	8.70	-	-	23.91	36.96	30.43	100.00 (46)	11.11	1.85	-	35.19	33.33	18.52	100.00 (34)
Higher	-	-	32.18	63.22	1.15	3.45	100.00 (87)	-	-	30.30	66.67	3.03	-	100.00 (33)
All Levels	28.21	8.55	11.97	28.21	9.40	13.63	100.00 (234)	35.42	10.83	4.17	17.92	15.03	15.82	100.00 (240)

Note : Figures in brackets indicate actual number of workers in each educational level.

**Table 5.13 : Occupational Distribution of Workers
by Income Groups**

Level of Education/ Occupations	PCI of households (in Rs. '000)			
	Below 2.5	2.5 - 4.5	4.5 - 6.0	All Groups
0	1	2	3	4
<u>Upto Primary</u>	141(100.00)	52(100.00)	6(100.00)	199(100.00)
Cultivators	76 (53.90)	37 (71.15)	5 (83.33)	118 (59.30)
Labourers	36 (25.53)	6 (11.54)	-	42 (21.11)
Lower Cadres	8 (5.67)	1 (1.92)	1 (16.67)	10 (5.03)
Self-employeds	21 (14.89)	8 (15.38)	-	29 (14.57)
<u>Middle</u>	25(100.00)	25(100.00)	5(100.00)	55(100.00)
Cultivators	8 (32.00)	12 (48.00)	3 (60.00)	23 (41.82)
Labourers	-	3 (12.00)	-	3 (5.45)
Ministerials	1 (4.00)	1 (4.00)	-	2 (3.64)
Lower Cadres	8 (32.00)	3 (12.00)	2 (40.00)	13 (23.64)
Self-employeds	8 (32.00)	6 (24.00)	-	14 (25.45)
<u>Secondary</u>	39(100.00)	43(100.00)	18(100.00)	100(100.00)
Cultivators	4 (10.26)	3 (6.98)	3 (16.67)	10 (10.00)
Labourers	1 (2.56)	-	-	1 (1.00)
Ministerials	7 (17.95)	14 (32.56)	9 (50.00)	30 (30.00)
Lower Cadres	19 (48.72)	14 (32.56)	2 (11.11)	35 (35.00)
Self-employeds	8 (20.51)	12 (27.91)	4 (22.22)	24 (24.00)

Contd. Table 5.13

0	1	2	3	4
<u>Higher</u>	13(100.00)	44(100.00)	63(100.00)	120(100.00)
Managerial/ Supervisory	2 (15.38)	13 (29.55)	23 (36.51)	38 (31.67)
Ministerial	10 (76.92)	28 (63.64)	39 (61.90)	77 (64.16)
Lower Cadres	1 (7.69)	1 (2.27)	-	2 (1.67)
Self-employed	-	2 (4.55)	1 (1.59)	3 (2.50)
<u>All Levels of Education</u>	218(100.00)	164(100.00)	92(100.00)	474 (100.00)
Cultivators	88 (40.37)	52 (31.71)	11 (11.96)	151 (31.86)
Labourers	37 (16.97)	9 (5.49)	-	46 (9.70)
Ministerial	18 (9.26)	43 (26.22)	48 (52.17)	38 (8.02)
Managerial/ Supervisory	2 (09.92)	13 (7.93)	23 (25.00)	109 (23.00)
Lower Cadres	36 (16.51)	19 (11.59)	5 (5.43)	60 (12.66)
Self-employed	37 (16.97)	28 (17.07)	5 (5.43)	70 (14.77)

Note : Labourers include both Agricultural and Non-agricultural workers.

Chapter VI

EDUCATION AND EARNINGS

We observed in the preceding chapter that there exist large differentials among different socio-economic groups and between men and women with similar educational attainment, in their ability to secure employment. The employment market is found to be biased against women, persons from lower income groups, scheduled castes and tribes and rural areas. Thus persons of these origins are first disadvantaged in terms of access to education and the employment market tends to confound their disadvantage further. No doubt, these disadvantaged groups start working at relatively early age and also face smaller duration of unemployment before entering an occupation or employment. That is primarily because their economic situation compels them to participate in employment at the earliest irrespective of the status and earnings of the job they take. As a result, they discontinue their education to enter mostly low paid employment, thus reducing their life time earnings. But even those of them who are able to complete their

education upto a level, and to secure employment after that, are found to earn lower than similarly placed individuals from groups without their socio-economic disadvantage. It is to this questions that we turn over attention in the present chapter.

The broad hypothesis put to test here is that at similar educational level the differentials in earnings exist against scheduled castes/tribes, lower income groups, females and rural inhabitants. In order to isolate the differentials due to these characteristics from those arising out of age, and working experience, an analysis has been attempted on the basis of the age-earning profiles of persons from different socio-economic origin at similar levels of education. This method of analysis has been used in a number of studies in the past notably by Blaug,¹ Hansen²,

¹ Blaug, M., The Rate of Return to Investment in Education in Britain, Manchester School of Economic and Social Studies, 33/3, September 1965, pp.205-251.

² Hansen, W.L., (ed.), Symposium on Rates of Return to Investment in Education, Journal of Human Resources, 2/3, (Summer), 1967.

Howen,³ Harberger,⁴ Panchamukhi and Panchamukhi,⁵
Goel,⁶ Kothari,⁷ Chaudhari,⁸ Husain,⁹ and Shrimali¹⁰

³Bowen, W.G., Assessing the Economic Contribution of Education : An Appraisal of Alternative Approaches, in Economic Aspect of Education, Princeton, Industrial Relation Centre, 1963, pp.3-38.

⁴Harberger, A.C., Investment in Men Versus Investment in Machines : The Case of India, in Aderson C.A. and Bowmen, M.J. (ed.), Education and Economic Development, Chicago, 1965, pp.11-50.

⁵Panchmukhi, P.R. and Panchamukhi, B.R., Socio-Economic Variables and Urban Incomes in Pandit H.N. (ed.) Measurement of Cost, Productivity and Efficiency of Education, NCERT, 1969, pp.306-336.

⁶Goel, S.C., op. cit., 1975.

⁷Kothari, V.N., Return to Education in India, in Singh, B. (ed.), Investment in Education, Meenakshi Publishers, Meerut, 1967, pp.127-140.

⁸Chaudhari, D.P., Education Innovations and Agricultural Development, London, Croom Helm, 1979.

⁹Husain, I.Z., Return Approach to Educational Planning in Pandit, H.N. (ed.), op. cit., 1969, pp. 280-293.

¹⁰Shrimali, P.D., Pattern of Employment and Earnings among Graduates in Lucknow, Labour Research Centre Department of Economics, University of Lucknow, Lucknow, 1967.

for various purposes like explanation of wage differentials and life time earnings and returns on various levels and types of education. However, most of them have estimated the age-earning profiles at different educational levels aggregatively for general population as such but less attention is focussed in the assessment of differentials in earnings prevailing among different segments of population particularly between rural and urban areas, incomes and social groups and sex. Only a few studies, e.g. those by Shah and Srikantiah¹¹ and Tilak¹² have examined the relative differentials in earnings among different segments of population at different educational levels.

All the above noted studies have postulated that the earnings of individuals at different levels of education are mostly determined by their age and experience. Earnings are found to be significantly higher in the case of individuals having higher educational

¹¹Shah K.R. and Srikantiah, S., Education, Earnings and Income Distribution, An Inquiry into Equity Issues Involved in Government Financing of Higher Education in India, A Study of MS University of Baroda, Department of Business Economics, MS University Baroda, Mimeo., 1981.

¹²Tilak, J.B.G., The Economics of Inequality in Education, Sage Publication, New Delhi, 1987.

levels and longer duration of work experience as compared to individuals with lower values of these variables. Differentials in earnings at similar level of education are postulated to reflect variations in age and working experience among individuals. It is also observed that initially, earning of individuals at any level of education have the tendency to increase at a slower rate, then rates of growth in earnings pick-up with the accumulation of experience, reaches the peak, after which it tends to have a tendency to rise till retirement. But the tendency of earnings to rise is found steeper with higher educational level. In other words, advantages in earning is of higher extent at higher level of education than at lower level of education, and also the differences in advantage widen with age, the favourable differentials of earnings continue until retirement age, though the widening tendency slows down after a peak level of earnings. Thus, beside education, the age also acts as a proxy variable for amount of work experience acquired and learning by doing, although, with diminishing effectiveness as time passes.¹³

¹³ Sen, A.K., Economic Approaches to Education and Manpower Planning, Manpower Journal, 1966, pp.161-165.

The better educated mostly start with higher earnings presumably because of larger investment in education and higher productive efficiency.¹⁴ Also due to their social background which matters in hiring policies and a generally more flexible and more motivated approach, the better educated adapt themselves more easily to changing circumstances, derive greater benefit from work experience and training, act with greater initiation in problem solving situation and, therefore, find themselves assuming supervisory responsibility more often than the less educated.¹⁵

Although earnings of individuals tend to increase with respect to an increase in their educational level and age-experience, this relationship is found to vary in its extent by sex, race, natural ability, employment status, occupational and geographical location of the workers. As Blaug¹⁶ observes the distribution of earnings from employment related to such differentiating factors as sex, race, natural ability

¹⁴Blaug, M., op. cit., 1965.

¹⁵Bowen, B.G., op. cit., 1963, p.36.

¹⁶Blaug, M., op. cit., 1974, pp.32-33.

family circumstances, community environment and the size and sector of the employer establishments. Tilak found that the average earnings or life time earnings of women are much lower than the earnings of men at every educational level except at middle and higher professional levels of education.¹⁷ Similarly, he observes that the average life time earnings of the backward castes are much less than the non-backward castes; and, every increment in education leads to a higher rate of increment in earnings in case of the latter as compared to the former.¹⁸

6.1 Earning Profiles

Inter-group differences in earnings are widely prevalent among men and women, rural and urban workers, among people from different social groups and different economic status. Do these differences prevail in the same pattern for each level of education of workers? How do the earning differentials increase or

¹⁷ Tilak, J.B.G., op. cit., 1987, p.92.

¹⁸ Tilak, J.B.G., op. cit., 1987, p.106.

decline among these groups with increase in educational levels? Does education reduce or accentuate the initial differences due to socio-economic background of workers? We have attempted to examine these questions here on the basis of data from our sample study.

6.1.1 Male-Female Differences

A female worker with no or very little education earns about two-thirds of the income earned by a similarly placed male worker. Primary and middle level schooling tends to increase rather than decrease her advantage vis-a-vis a male worker. But once she crosses the secondary level of education, her disadvantage declines and she earns only about 20 per cent less than her similarly educated male counterpart.

In other words, gain in earnings with every additional stage of education is less in the case of women than of men in the lower stages of education, but it is more than that of a male worker at the higher stages of education. The total advantage turns out to be higher for women than for men, as the earnings of a women worker with high level of education are 483 per

cent higher than those of a women worker with no or less than primary education; figure for male workers is 409 per cent. It seems that while the lower educational levels only perpetuate the differentials that already exist between males and females; higher levels of education tend to reduce the inequalities significantly

Table 6.1 : Earning Profiles of Male and Female by Level of Education

Level of Education	Male		Female		Total	
	Average earnings (Rs)	Index of earning	Average earnings (Rs.)	Index of earning	Average earnings (Rs.)	Index of earning
Below Primary	3737.92 (100)	100.00	2457.84 (66)	100.00	3131.64	100.00
Primary	5341.06 (100)	142.89	3060.26 (57)	124.51	4789.25	152.93
Middle	7300.00 (100)	195.30	4100.00 (56)	166.81	7009.09	223.82
Secondary	8443.11 (100)	225.80	6850.00 (81)	278.70	8299.73	265.03
Higher	15295.46 (100)	409.20	11860.83 (78)	482.54	14608.53	466.48
All Levels	8769.64 (100)		4851.47 (55)		7794.23	

6.1.2 Rural-Urban Differences

Earnings of an urban worker are usually higher than the rural worker; and earnings of the educated workers also differ between the two areas in the same direction. But it is significant to note that these differences tend to get significantly reduced, with increasing level of education so much so that at 'higher' education level there is only a small difference (Table 6.2). Looking at the index of earnings at different educational levels with below primary as 100, it rises more steeply with educational level in rural areas than in urban areas. This tendency is observed equally for both the male and female workers.

Thus education is seen as an instrument of income equality between rural and urban areas. Keeping in view however, the pattern of educational utilisation by rural and urban people where we find that the rural population is able to avail mainly primary and middle education the equalising force of education is inevitably weaker than could have been if educational opportunities and their utilisation were evenly distributed between rural and urban areas.

Table 6.2 : Earning Profiles of Different Sex in Rural and Urban Areas by level of Education

Level of Education	Rural			Urban		
	Male	Female	Total	Male	Female	Total
Below Primary	3406.81 (100.00)	2373.54 (100.00)	2859.27 (100.00)	4817.64 (100.00)	4200.00 (100.00)	4725.00 (100.00)
Primary	5251.31 (154.17)	3060.26 (123.93)	4631.20 (161.97)	5720.00 (118.75)	-	5720.00 (121.06)
Middle	7458.92 (218.99)	4100.00 (172.74)	7029.20 (245.80)	6962.50 (144.58)	-	6962.50 (147.35)
Secondary	7865.58 (230.93)	5390.00 (248.15)	7646.07 (267.41)	8896.08 (184.68)	8050.00 (191.67)	8834.55 (186.97)
Higher	14856.00 (436.17)	10000.00 (421.31)	14393.52 (503.40)	15403.90 (319.78)	12030.00 (286.43)	14654.14 (310.14)

6.1.3 Differences among General Castes and SC/ST

Overall earnings of the scheduled castes/tribes are comparatively lower than of the general caste population. Differences change their pattern with different levels of education. They are the highest at secondary level of education; but are in fact, in favour of scheduled castes at higher, and significantly so, at the middle level of education. It seems that the protective discrimination in government jobs in favour of scheduled castes is able to effectively 'distort' the traditional differences. What is further significant to note, is that the earning increments with higher stages of education over the base i.e. below primary education, are consistently higher for SC/ST castes. However at secondary education the earning indices of general castes show a higher increase than the SC/ST population. At all remaining educational levels the indices turn-up in favour of SC/ST population.

Thus despite an overall disparity of 37 per cent in favour of general castes, the average earning level of the two groups are similar at higher level of education. Thus education is found to exert an equalising

force between SC/ST and general caste population. It is, however, weakened by the fact that while about 37 per cent of the general caste workers have had higher education, a similar proportion of the SC/ST workers did not even complete primary education and only 14 per cent of them reached 'higher' educational level; and the earning levels of higher education are about five times that of the lowest level. No doubt, the SC/ST workers who had benefit of higher levels of education stand more or less equal level with others in terms of earnings. Thus education is found to exert an equalising force between SC/ST and general population.

Table 6.3 : Earning Profiles of Different Castes by Level of Education

Level of Education	General Castes		SC/ST	
	Average earnings	Index of earning	Average earnings	Index of earning
0	1	2	3	4
Below Primary	3156.56 (100)	100.00	3026.82 (96)	100.00
Primary	4675.17 (100)	141.11	4597.06 (98)	151.88
Middle	6587.50 (100)	200.59	7538.33 (114)	249.05
Secondary	8982.24 (100)	284.56	7971.89 (89)	263.38
Higher	14540.28 (100)	460.64	14661.21 (101)	484.38
Total	9074.28 (100)		6546.18 (82)	

It is, however, often contended that only those in the upper income groups amongst SC/ST are able to benefit from such education and use better employment opportunities. These benefits of the groups of SC/ST population could thus be attributed to their sound economic situation, and are further reinforced by the government's protective policy of preference and reservation. Thus it seems that the government's measures of equalisation in the pattern of educational utilisation and income distribution among different groups of population have benefitted only SC/ST population which were already in sound economic position within their caste groups, and, in fact, widening the gap in income distribution among SC/ST and other general castes, in general. There are several studies such as the study by Field,¹⁹ Jallade,²⁰ Blaug,²¹

¹⁹Field, G.S., Distribution Effect of Higher Education Subsidies, Economics of Education Review, Summer, 1982.

²⁰Jallade, J.P., The Financing of Education : An Examination of Basic Issues, World Bank Staff Working Paper No.157, Washington D.C., 1973.

²¹Blaug, M., op. cit., 1982.

Psacharopoulos²² also reached at the conclusion that in almost all developing countries the Government policy for redistribution of income with subsidising education and protection in employment in favour of disadvantaged groups of society have often favoured the rich segments of the specially categorised population and the poorer have remained poor. We, therefore, now examine whether the equalising force of education observed so far has also operated in case of persons belong to households with different income levels.

6.1.4 Differences among Income Groups

Though education, particularly the level and type which leads to substantial benefits, is required mostly by the economically better endowed, it is worthwhile to compare those less endowed but having attained the benefit as to those with similar education, but better endowed. Study by Becker and Chiswick²³ suggests that the education could be

²²Psacharopoulos, The Perverse Effects of Public Subsidisation of Education, Comparative Education Review, 21, No.1, February 1977, pp.69-90.

²³Becker, G.S. and Chiswick, B., Education and the Distribution of Earnings, American Economic Review, 1966, pp.358-370.

used as an instrument for reducing the existing imbalances of income distribution while the study of Jallade²⁴ observes that in developing countries, the rapid growth of education has not led to a reduction in income inequality may have even increased as a result of educational expansion. A study by Carnoy²⁵ in Mexico concludes that educational development has become more equal but income distribution has become unequal. Further, he suggests that the education policy can only contribute to the more equal distribution of earnings when it is carried out in concert with an income policy.

Thus, though the earnings of individuals correspond to their educational levels, it is difficult to assert that similar level of education among different income groups of population will certainly lead to equal amount of earning opportunities to them. It is often seen that even when persons from relatively lower

²⁴ Jallade, J.P., Public Expenditure on Education and Income Distribution in Colombia, Baltimore, John Hopkins University Press, 1974.

²⁵ Carnoy, M., Can Education Policy Equalise Income Distribution in Latin America? Farnborough, U.K. Saxon House, 1979.

income groups manage to avail substantial level of education or similar to upper income groups, they do not find similar kind of earning opportunity due to lack of mobility, capacity to bear the cost of waiting, extent of higher family dependency etc.

We observe such a situation in the analysis of our own data, where it is seen that for similar levels of education the earning levels differ widely among the workers belonging to households with different per capita income levels. Average earnings are seen to consistently increasing with PCI level at each of the five different educational levels of workers. At the same time, we also observe that increment in earning accruing due to each additional level of education is higher in the case of low income groups than of the high income groups. As a result the inter income group differentials in earnings are lower at higher level of education than at lower levels of education.

Thus it seems that education tends to reduce inequalities in earnings among different income groups. The tendency is found to be stronger as we proceed

Level of Education

(PCI of households (in '000 Rs.))

Level of Education	Below 1.5	1.5 - 2.5	2.5 - 3.5	3.5 - 4.5	4.5 - 6.0	6.0 +
AV.	AV.	AV.	AV.	AV.	AV.	AV.
earnings Index	earnings Index	earnings Index	earnings Index	earnings Index	earnings Index	earnings Index
Below Primary	1752.44 (100.0)	3306.45 (100.0)	3832.32 (100.0)	5120.56 (100.0)	5335.00 (100.0)	6590.00 (100.0)
Primary	3043.00 (173.64)	4350.00 (131.56)	5533.33 (144.39)	5196.15 (101.48)	8000.00 (149.95)	10077.00 (152.91)
Middle	5750.00 (328.11)	6510.00 (196.89)	6981.81 (182.18)	6507.14 (127.08)	12600.00 (236.18)	10425.00 (158.19)
Secondary	4622.22 (263.76)	6053.33 (183.08)	8809.52 (229.87)	10129.09 (197.81)	10979.46 (205.80)	11240.00 (170.56)
Higher	5750.00 (328.11)	13718.18 (414.89)	13021.09 (339.77)	14413.64 (281.49)	13869.23 (259.97)	16931.35 (256.92)
All Levels	2692.11	5252.38	8655.25	8884.94	12601.55	15350.92

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from below primary to primary to secondary education, but becomes weaker as we go to higher levels of education. Earning differentials among income groups are found to be the highest at below primary level of education, followed by primary, 'higher', and secondary and are the lowest at middle level of education.

6.2 Age-Earning Profiles

Besides, examining earning advantages of education for different groups, as we did in the earlier sections, it is also interesting to see how different groups, with similar levels of education gain in earnings with longer periods of working life. Taking age as the proxy for period of working life we could portray age earning profile of workers for this purpose, which also gives us an idea of the increase in life-time earnings of individuals with given level of education, across the socio-economic groups.

It is a common observation that earnings of a worker increase with age; the rate of increase may vary for different levels of education; but it can further vary, even for the same level of education

between men and women, workers with rural or urban origin and among those with different socio-economic backgrounds. Since the effective working age is presumed to get terminated at the age of sixty, it is also observed that the earnings generally decline after that age, if some persons still continue to work, otherwise most people reach at the peak level of income in the age between 50-60 years, except those with no or little education. That is why we see (Appendix I) that in these two groups of educational levels the highest earnings are achieved in the age 40-50 years.

Overall in all our sample, a worker on an average attains a highest level of earnings which is about five times higher than the initial earnings. But the situation differs significantly among those with different educational attainments. Those with middle school education achieve a peak level income, three times their initial earnings, the figures for below primary is 3.5 for primary 1.7, for secondary 1.8, and for higher level of education 2.3 times their respective initial earnings.

For the purpose of our analysis, however, what is more important is to examine the differential gains of different socio-economic groups; rural-urban, male-female, general castes, scheduled castes/tribes and those with varying household income levels.

6.2.1 Rural-Urban Differences

An urban worker's index of earnings, with the initial earnings as the base, reaches the highest figure of 516 at any time during his working life. The corresponding figure for a rural workers is 330. These figures, however, are combined for all levels of education. But the pattern is different for most of the different levels of education, while the gains in earnings during their career are relatively higher for urban workers than of rural workers in the groups with below primary and middle levels of education, the rural workers score over the urban workers in the group of primary and higher education and also marginally in the group of secondary educated workers. Thus it appears that there are possibilities to control the problems of existing differentials in incomes

between rural and urban areas by way of giving secondary and higher educational opportunities to rural population.

Table 6.5 : Life Time Increase in Earnings:
Highest as percentage of Initial
(Rural-Urban Workers)

Level of Education	Rural	Urban
Below Primary	230.88	335.59
Primary	173.06	143.94
Middle	281.92	328.33
Secondary	178.75	172.82
Higher	267.70	223.82
All Levels	330.19	515.62

6.2.2 Male-Female Differences

Analysis of differentials in earnings of male and female workers reveals that an overall index of highest earnings at any period of working span of their

life is comparatively higher in case of female workers than the male workers. But at the middle and higher educational levels the indices of earnings are higher in case of male workers than the female workers. Further, the highest differentials in the indices of highest earnings in favour of females are noticed at primary level of education.

Table 6.6 : Life-Time Increase in Earnings:
Highest as Percentage of Initial
(Male-Female)

Level of Education	Male	Female
Below Primary	266.77	275.81
Primary	161.98	360.00
Middle	313.47	118.75
Secondary	173.54	189.42
Higher	241.11	156.81
All Levels	449.42	482.93

6.2.3 Differences among General Castes and SC/ST

Looking at the indices of highest earnings at any time in working life of general and SC/ST workers,

the overall score of SC/ST workers are much less than the workers of general caste. If we examine the pattern of differentials in earning scores of these groups at different educational levels, it is seen that the workers of general caste having primary and below primary levels of education receive better earning opportunity than the SC/ST workers at any period of their working life, but at the middle and higher educational levels, the earning indices are found significantly much higher in favour of SC/ST workers than the workers of general castes. However, both the groups of workers having secondary education are found have equal levels of peak earnings in their working life.

**Table 6.7 : Life-Time Increase in Earnings:
Highest as Percentage of Initial
(General Castes and SC/ST)**

Level of Education	General Castes	SC/ST
Below Primary	492.97	227.70
Primary	174.71	174.24
Middle	238.55	368.89
Secondary	185.49	184.95
Higher	213.88	280.17
All Levels	628.99	397.17

Thus the SC/ST workers who have utilised at least middle level of education receive significantly better earning opportunities than the general caste population. Although, while joining the employment the SC/ST population with middle and higher education have lower level of earnings but their earnings increase at higher rate than of the general caste population during their working periods (Annexure (IV)).

6.2.4 Differences among Income Groups

Further we examine the extent of differentials in life-time earnings among various income groups having similar level of education. Taking into account the index of highest earnings of workers with their initial earnings as the base, we find that the earning index of workers with middle PCI groups (Rs.2500-4500) is comparatively higher than of the workers with other PCI groups. However, at different educational levels the pattern of earnings are different. But the pattern of earnings at different educational levels; in the groups of educational levels of below primary, primary and middle, the earning indices of workers with below

Rs. 2500 PCI groups are higher than the remaining income groups, while the workers with middle PCI groups (Rs. 2500-4500) score better than the other income groups at secondary and higher educational levels. The earning scores of highest PCI groups are noticed almost at lower extent in all the educational levels.

Extent of differentials in peak earnings at any stage of working life of workers is higher at the level of below primary education followed by at primary level. At the same time the gaps in earning indices starts declining at subsequent levels of

Table 6.8 : Life-Time Increase in Earnings:
Highest as Percentage of Initial
(Different Income Groups)

Level of Education	PCI of Households (in '000 Rs.)		
	Below 2.5	2.5 - 4.5	4.5 and above
Below Primary	294.27	206.97	86.00
Primary	208.44	188.37	91.00
Middle	320.00	261.69	182.37
Secondary	187.94	189.94	110.07
Higher	215.91	275.93	241.10
All Levels	346.38	347.20	199.97

education among workers. Further, at the initial period of working life, the workers with lower PCI groups are found getting relatively lower earnings than the workers with middle and higher PCI groups in all the educational levels. But their earning indices increase at faster rates than the workers of middle and higher PCI groups in majority of educational levels. The increments in earnings with age, of different PCI groups of workers vary only marginal. Thus we can conclude that if the educational opportunities could be given equitably to different income groups of population, the gaps in income distribution could be reduced; as we noticed that workers with lower levels of PCI groups get the similar advantage in earnings as these in higher income groups, at secondary and higher educational levels, and their peak earning indices are substantially higher than the workers of middle and higher PCI groups.

Annexure I : Age-Earning Profiles by Levels of Education

Level of Education	Age Groups (Years)					
	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 & above
Below Primary	1881.11 (100.00)	2065.00 (109.78)	3343.65 (177.75)	4730.00 (251.45)	4708.82 (250.32)	2776.92 (147.62)
Primary	3768.75 (100.00)	3623.89 (96.16)	4971.53 (131.91)	6444.44 (171.00)	6022.22 (159.79)	5275.00 (139.97)
Middle	3575.00 (100.00)	6060.00 (169.51)	7200.00 (201.40)	8400.00 (234.97)	10762.50 (301.05)	9000.00 (251.75)
Secondary	-	6926.46 (100.00)	9222.50 (133.15)	9430.77 (136.16)	12281.82 (177.32)	6916.67 (99.86)
Higher	-	9020.61 (100.00)	13315.00 (138.41)	15467.88 (160.79)	22024.77 (228.95)	8225.00 (85.50)
All Levels	2633.67 (100.00)	5780.60 (219.49)	7762.86 (294.75)	10207.88 (387.59)	12988.65 (493.18)	4985.71 (189.31)

Note : Figures in brackets are indices of earnings at different levels of education of workers in their different age groups.

Annexure II : Age-Earning Profiles of Rural and Urban Workers
at Different Level of Education

Level of Education	Age Group (in years)										
	Rural					Urban					
	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and above	Below 20	20 - 30	30 - 40	40 - 50	50 - 60 and above
Below Primary	1864.00 (100.00)	2021.62 (108.46)	3049.35 (163.59)	4246.47 (227.81)	4303.57 (230.38)	2590.91 (139.00)	1966.67 (100.00)	2500.00 (132.20)	5500.00 (284.75)	6100.00 (310.17)	6600.00 (335.59)
Primary	3390.00 (100.00)	3623.89 (106.90)	4686.36 (138.24)	6475.00 (191.00)	5866.57 (173.06)	5275.00 (155.60)	4400.00 (100.00)	-	6540.00 (143.64)	6200.00 (140.91)	6333.33 (143.94)
Middle	4150.00 (100.00)	6255.56 (150.74)	7323.08 (176.46)	8200.00 (197.59)	11700.0 (281.92)	9000.00 (216.88)	3000.00 (100.00)	4300.00 (143.33)	6971.43 (232.38)	8600.00 (286.67)	9850.00 (328.33)
Secondary	-	6713.46 (100.00)	8895.45 (132.50)	8800.00 (131.08)	12000.0 (178.75)	5750.00 (85.65)	-	7123.08 (100.00)	9622.22 (135.09)	10166.67 (142.73)	12310.00 (172.82)
Higher	-	9750.00 (100.00)	13057.5 (133.92)	15200.026 (155.90)	101.33 (267.70)	4500.00 (46.15)	-	9602.76 (100.00)	13443.75 (140.00)	15515.71 (161.58)	21493.04 (223.82)
All Levels	2450.45 (100.00)	4474.28 (182.59)	6351.44 (259.19)	7099.74 (289.73)	8091.21 (330.19)	3926.32 (160.23)	3137.50 (100.00)	8001.33 (255.02)	10280.54 (327.67)	13020.00 (414.98)	16177.67 (515.62)

Annexure III : Age-Earning Profiles of Different Sex
at Different Levels of Education

Level of Education	Age Groups (in years)											
	Men						Women					
	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and above	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and above
Below Primary	2263.64 (100.00)	2456.25 (108.51)	3640.91 (160.84)	6038.64 (266.77)	5308.33 (234.50)	3109.09 (137.35)	1280.00 (100.00)	1804.17 (140.95)	3125.67 (244.19)	3530.42 (275.81)	3270.00 (255.47)	950.00 (74.22)
Primary	4128.57 (100.00)	4083.33 (98.90)	5678.75 (137.55)	6687.50 (161.98)	6637.50 (160.77)	5275.00 (127.77)	1250.00 (100.00)	2836.29 (226.90)	3940.00 (307.20)	4500.00 (360.00)	1100.00 (88.00)	-
Middle	3433.33 (100.00)	6344.44 (184.79)	7472.22 (217.64)	8400.00 (244.66)	10762.50 (313.47)	9000.00 (262.14)	4000.00 (100.00)	3500.00 (87.50)	4750.00 (118.75)	-	-	-
Secondary	-	7077.09 (100.00)	9505.56 (134.31)	9777.78 (138.16)	12281.82 (173.54)	6917.67 (97.75)	-	4566.67 (100.00)	6675.00 (146.17)	8650.00 (189.42)	-	-
Higher	-	9686.92 (100.00)	13618.0 (140.58)	16558.33 (170.93)	23356.55 (241.11)	8225.00 (84.90)	-	9374.29 (100.00)	11800.0 (125.88)	12560.0 (133.98)	14700.00 (156.81)	-
All Levels	3085.71 (100.00)	6613.30 (214.32)	8845.87 (286.67)	11520.83 (373.36)	13867.93 (449.42)	5296.15 (171.63)	1578.89 (100.00)	3476.14 (220.16)	4861.96 (307.94)	7480.96 (473.81)	7625.00 (482.93)	950.00 (60.17)

Annexure IV : Age Earning Profiles of General Castes and SC/ST
Workers at Different Levels of Education

Age Groups (in years)

Level of Education	General castes										SC/ST	
	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and above	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and above
Below Primary	960.00 (100.00)	1721.43 (179.32)	4241.67 (411.84)	4732.50 (492.97)	4261.11 (443.86)	3360.00 (350.00)	2289.23 (100.00)	2340.00 (102.22)	3074.25 (134.29)	4728.08 (206.54)	5212.50 (227.7)	2412.50 (105.38)
Primary	3625.00 (100.00)	3637.50 (100.34)	4760.00 (131.31)	6290.00 (173.24)	6333.33 (174.71)	5800.00 (160.00)	3816.67 (100.00)	3614.00 (94.69)	5510.00 (144.37)	6650.00 (174.24)	5866.67 (153.71)	4750.00 (124.45)
Middle	4150.00 (100.00)	6344.44 (152.88)	7220.00 (173.98)	8200.00 (197.59)	9900.00 (233.55)	-	3000.00 (100.00)	5827.27 (194.24)	7180.00 (239.33)	8600.00 (285.67)	11066.67 (368.89)	9000.00 (300.00)
Secondary	-	6595.21 (100.00)	8888.46 (134.77)	9925.00 (150.49)	12233.33 (183.49)	7900.00 (119.78)	-	6758.62 (100.00)	9842.86 (145.63)	8640.00 (127.84)	12500.00 (184.95)	6425.00 (95.06)
Higher	-	9919.17 (100.00)	12450.0 (125.51)	16049.57 (161.80)	21215.20 (213.88)	8225.00 (82.92)	-	9824.44 (100.00)	14045.0 (159.16)	14130.0 (160.12)	24723.33 (280.17)	-
All Levels	2261.11 (100.00)	6388.30 (262.53)	8499.62 (375.90)	11392.87 (503.85)	14222.19 (528.99)	5930.77 (252.29)	2793.33 (100.00)	5330.80 (190.84)	6981.90 (249.95)	8520.15 (305.02)	11094.29 (397.17)	4166.67 (149.16)

Annexure IV : Age Earning Profiles of Workers with Different Income Groups at Different Level of Education

Level of Education/ PCI of Households (in '000 Rs.)	Age Groups (in Years)					
	Below 20	20 - 30	30 - 40	40 - 50	50 - 60	60 and more
	1	2	3	4	5	6
Below Primary						
Below 2.5	1476.71 (100.00)	1704.55 (115.42)	2691.32 (182.25)	4345.53 (294.27)	3962.50 (261.56)	2870.00 (194.35)
2.5 - 4.5	3300.00 (100.00)	4192.86 (127.06)	5123.33 (155.25)	6960.00 (210.90)	6830.00 (206.97)	2466.67 (74.75)
4.5 +	-	-	7060.00 (100.00)	5355.00 (75.85)	6020.00 (86.12)	-
Primary						174
Below 2.5	2883.33 (100.00)	3202.73 (111.07)	4409.09 (152.92)	5475.71 (189.91)	6010.00 (208.44)	2146.00 (74.42)
2.5 - 4.5	4300.00 (100.00)	4203.00 (97.74)	8050.00 (187.21)	8100.00 (188.37)	6316.00 (146.88)	5200.00 (120.93)
4.5 +	-	-	-	-	8300.00 (100.00)	7554.00 (91.00)
Middle						
Below 2.5	3000.00 (100.00)	4921.43 (164.05)	6627.27 (220.91)	8400.00 (250.00)	9600.00 (320.00)	-
2.5 - 4.5	4150.00 (100.00)	6895.00 (166.14)	7162.50 (172.59)	-	10860.00 (261.69)	9000.00 (216.87)
4.5 +	-	7600.00 (100.00)	13300.00 (181.58)	-	13860.00 (182.37)	-

Annexure V Continued

0	1	2	3	4	5	6
<u>Secondary</u>						
Below 2.5	-	5178.95 (100.00)	5315.00 (102.63)	5870.00 (113.34)	9733.33 (187.94)	6550.00 (126.47)
2.5 - 4.5	-	7387.60 (100.00)	13400.00 (181.39)	13560.00 (183.55)	13980.00 (189.29)	7100.00 (96.11)
4.5 +	-	10902.50 (100.00)	11833.33 (108.54)	11950.00 (109.61)	12000.00 (110.07)	7100.00 (65.12)
<u>Higher</u>						
Below 2.5	-	7700.00 (100.00)	11192.50 (145.36)	16046.67 (208.40)	16625.00 (215.91)	-
2.5 - 4.5	-	9272.00 (100.00)	12100.71 (130.51)	15258.33 (164.56)	25584.00 (275.93)	7200.00 (77.65)
4.5 +	-	8755.79 (100.00)	17531.67 (200.23)	16511.11 (183.57)	21110.50 (188.57)	8750.00 (99.93)
<u>All Levels</u>						
Below 2.5	1858.42 (100.00)	3447.70 (185.52)	4917.36 (264.60)	5977.36 (321.64)	6437.27 (346.38)	3483.33 (187.44)
2.5 - 4.5	3909.09 (100.00)	6655.57 (170.26)	9928.38 (253.98)	12884.76 (329.61)	13572.67 (347.20)	5413.27 (138.48)
4.5 +	-	9091.96 (100.00)	14686.36 (161.53)	15128.47 (166.39)	18191.20 (199.97)	7650.80 (84.15)

Chapter VII

CONCLUSION

7.1 The Problem and Objective

The contribution of education has been well recognised in increasing the cognitive abilities, technical skill and knowledge, productive skill, and mobility in different occupations and geographical areas among human resources, and thus in increasing contribution of human resources in the process of economic development and their personal incomes as well. Imperical analysis carried out during past also suggests that imparting education among the individuals who owned little or no assets could be an important instrument for reducing the existing levels of inequalities in the pattern of income distribution among the group of population with different origins.

In view of the significant relationship between the extent of educational development and the level and pace of economic development, expenditure on education is viewed as investment in human capital. To a large extent, rising investment in education is

associated with the increasing demand for qualified man-power for economic development in different countries. To-day rapid economic development is mostly possible through technological changes in the different economic activities which increase the demand for education. The demand for education also rises for achieving equalisation in the pattern of income distribution and consumption pattern among different groups of the population in the society. The increase in educational expenditure in India in recent years is understandably related to a large extent, to the social pressure for more educational opportunities particularly for the disadvantaged socio-economic groups of population. These social pressures embody not only desire for education purely considered as education but more significantly, the economic calculations of the relationship between education and higher income. Thus a larger magnitude of investment in educational development is required both for the needs of economic development and the welfare considerations particularly for the socio-economically disadvantaged groups of population.

Recognising education as an important instrument for improvement in socio-economic conditions for bringing about a reduction in income inequalities, a great significance is attached to the expansion and development of different levels of educational facilities. Besides, subsidised educational opportunities are also provided for the socio-economically disadvantaged groups of population. Inequality in income distribution itself impedes the role of education in reducing them as educational opportunities get only unequally utilised by different socio-economic groups.

The primary objective of our study has been to examine the extent of differentials in the provision, utilisation and benefits of different levels of educational facilities between rural and urban population, between men and women between socially depressed and upper castes and among people with different economic condition. An assessment has been carried out to examine the level and pace at which education increases or reduces the differentials of status and level of employment and earning opportunities among these different population groups.

We now recapitulate the main findings of our analysis in this chapter with a view to drawing certain conclusions and implications about the role of education in reducing the existing differentials in the pattern of income distribution among different groups of population.

7.2 Expansion of Educational Facilities

An unprecedented expansion of educational facilities at different levels has taken place in the country in the post-Independence period. Still large differentials are found to exist between urban and rural areas. Further, the highest expansion has taken place with respect to higher education followed by middle, secondary and primary level of education. Educational facilities in relation to population, measured by number of institutions per lakh of population, have also increased tremendously during this period, but higher in rural than in urban areas. But the student teacher^{ratio} has been increasing at different educational levels, indicating a decline in quality of education.

It is significant to note that the expansion of different levels of educational institutions has been higher in rural areas than in urban areas. However, the facilities for higher education are still, by and large, confined in urban areas. Thus in terms of number of institutions per lakh of population, the school level educational institutions have increased faster in rural areas than in urban areas while the expansion of higher educational institutions is much more rapid in urban areas than in rural areas. The State of U.P. has made more significant progress in providing school level educational facilities than is observed for the country on an average; reduction in population to institution ratio has been faster in primary education and rates of expansion of middle and secondary educational facilities have been higher in the State than in the country as a whole. ✓

So-far-as the differences in the educational facilities for men and women are concerned, no separate institutions exist at present for boys and girls. It is, however, noted that the institutions for middle and higher levels of education have increased faster

in number for women as compared to those for men. Yet relative differentials facilities in terms of the number of institutions per lakh of population are higher for men than for women.

The qualitative indicators of educational facilities such as student-teacher ratio⁸ are found to be higher for women than for men at all the stages of education. Increase in student-teacher ratio for men has been higher than for women in primary and middle levels of education in India as a whole, while in Uttar Pradesh the ratio has increased faster for women than for men in all the levels of education except in higher education.

Further, examining the pattern of distances to the different levels of educational facilities it was revealed that although the significant progress has been achieved in providing the facilities for primary and middle level education in rural areas, and the rural people get these facilities covering the distance of about one km., for the secondary and higher level educational facilities, they have to travel a distance of 5 kms. and 19 kms. respectively as these facilities are mainly available in urban areas.

7.3 Utilisation of Educational Facilities

The enrolment rates of both men and women have increased considerably since 1950-51 at different levels of education. Yet the enrolment rates at different levels of education continue to be significantly higher in case of men than of women throughout the period. It is noted that enrolment rates both for men and women at different levels of education have increased at a higher pace in U.P. as compared to the country as a whole during the period since 1950-51.

✓ Enrolment rates are significantly higher for men (62.37 per cent) than for women (48.38 per cent). And these differences increase consistently in favour of men as we proceed from primary to middle, secondary and higher levels of education. Further, the enrolment rates are very much higher both for men and women in urban areas as compared to the rural areas, and these differentials increase with higher levels of education. Overall, women are found availing mainly the facility of school level education while; only 13.45 per cent of them as against 26.59 per cent of men of the relevant age-group are enrolled at higher educational level.

Population belonging to Scheduled Castes is found participating in different levels of educational system to a relatively smaller extent than the general castes groups of population. These differences become more marked as we proceed from lower to higher age groups, corresponding to lower to higher levels of education. Overall, the enrolment rate of SC/ST population in the age group 6-23 is 48 per cent as against 66 per cent of general caste population. But in the age group 16-18 the SC/ST enrolment rate is 55 per cent against 77 per cent of other castes and in 19-23 age group the former is 9.5 per cent and the latter 32 per cent. ✓

Relating enrolment rates with household income the analysis revealed that the enrolment rates increase with the income ranges both in rural as well as in urban areas, however, the differences in enrolment rates between the lowest and highest income groups are comparatively much higher in rural areas than in urban areas. Further, the effect of income level on utilisation of educational opportunities, in terms of enrolment is more prominent in case of

women as compared to men. The drop-outs from the systems of primary and middle level education are invariably higher among rural population than urban population. But at secondary level of education the drop-out rates are similar between rural and urban segments. Of the population enrolled initially at primary level only 12 per cent from rural against 42 per cent from urban areas reach the stage of higher education.

The drop-out rates are found comparatively lower among girls than among boys, in the middle and secondary level while the reverse is the situation at the primary and higher level. 32 per cent of women as against 30 per cent of men, of those initially enrolled in primary education, are found to reach the stage of higher education. The proportion of those enrolled in class I, reaching upto the stage of higher education is found much less in rural areas (12 per cent) as compared to urban areas (42 per cent). Drop-outs at the pre-primary and post-secondary levels show similar extent both in rural and urban areas but the incidence of drop-outs is much higher in the rural than in the urban areas at the post-primary and pre-secondary level of education.

Drop-out rates among SC/ST groups are significantly higher than among the general caste groups of population in all the educational levels and income groups. Around 39 per cent from general caste and 19 per cent from SC/ST groups, from amongst those initially enrolled in primary schools are able to avail the facility of higher education. However, the differentials in drop-out rates narrow down as we proceed from primary to middle and secondary level of education. Further, the PCI levels of individual family is found negatively related with their rates of drop-out of SC/ST and general caste population. But the differentials are higher in favour of general caste in case of both men and women. The differentials decline as we proceed from primary to middle and secondary education; but drop-out are higher in case of women than men in higher education.

7.4 Education and Employment

✓ Overall unemployment rate among women in our sample was 12.28 per cent which was significantly higher than among men (5.57 per cent). The highest

rate of unemployment was found among the people with secondary education (15.57 per cent) followed by graduates and post-graduates (9.47 per cent). The incidence of unemployment is about 3 per cent among rural workers as compared to 12 per cent among urban workers. This pattern of differences obtains not only in aggregate but also for male and female workers separately. But at higher levels of education unemployment among females is somewhat higher (33 per cent) in rural areas than among similarly educated women in urban areas (31 per cent). Similarly, the unemployment rate of rural men with secondary and higher education is found higher than their urban counterparts while the extent of unemployment among rural men with below middle education is found lower than among the urban men.

Unemployment rates among general caste population (9.65 per cent) is significantly higher than the SC/ST groups of population (3.98 per cent). However, the unemployment rate among SC/ST population with less than middle level of education is higher than general caste population.

The unemployment rates among the population with highest income groups (11.11 per cent) is comparatively higher than in lowest income groups (7.79 per cent). However the lowest rate of unemployment (2.20 per cent) is noticed among the population with middle level of per capita income groups (Rs.3500-4500). Among the population with higher educational levels, the unemployment rate is higher at lower PCI (below Rs.2500) groups than the relatively higher PCI groups.

The average age at seeking employment was found 17 years for both men and women, however the age at seeking employment for urban men (18.35 years) as well as women (20.38 years) is found to be relatively higher than rural men (16.16 years) and women (15.96 years). Rural men with secondary and higher educational level are found to start seeking employment at a higher age than the urban men with similar educational attainments. Average age at seeking employment increases, as expected with the increase in educational levels.

The average age of SC/ST population at entering the labour market is somewhat lower (16.66 years)

than the general caste population (17.60 years). But, if we analyse the age components according to educational levels, the average age of SC/ST population is found to be relatively higher than the general caste population at different levels of education. This is because the proportion of general caste population with higher education is much higher than SC/ST groups of population.

Further the analysis revealed that there is a consistently positive relationship between the income levels of individuals and their age at seeking employment. The average age at seeking employment between lowest and highest income groups vary from 15 to 20 years.

Analysing the duration of waiting period before getting employment, we found the waiting period for men (0.61 years) to be relatively higher than for women (0.38 years). The highest duration of waiting period (unemployment) is observed among those with secondary education (0.98 years) followed by those

with higher (0.94 years), middle (0.59 years) and below primary education (0.09 years). Waiting period for rural population (0.32 years) is much lower than that for the urban groups of population (0.88 years). However, among those with higher education, those from rural areas are found waiting for longer duration than those from urban areas, before getting employment.

The average waiting period for employment in the case of SC/ST population is (0.49 years) found comparatively lower than for the general caste population (0.61 years). However, the waiting period for general caste population is lower than for SC/ST, in the case of those with middle and secondary education. At higher educational level, the general caste job seekers wait for 0.96 years and SC/ST job seekers (0.88 years) before securing employment. The protective policy of government in favour of SC/ST in providing employment opportunities seem to have led to the reduction in their duration of time spent in searching employment particularly in case of individuals who have attained higher education.

A consistent positive relationship was observed between the per capita income levels of households and the waiting period for employment among their members. However, this relationship becomes weak if the analysis is carried out for different educational levels of job seekers.

Comparing the relative position of rural and urban workers in the occupational pattern of employment it is observed that most people in rural areas particularly those with little education, in any case are engaged in agriculture and the urban workers without having secondary and higher education are mainly engaged in low status activities such as casual labourers, menial jobs in establishments or own account workers. ✓ Of the workers with higher education in urban areas, 32 per cent are in managerial/supervisory and 66 per cent in clerical position, the corresponding figures for rural workers with similar education are 29 and 57 per cent. ✓

A much larger proportion of women than men with below middle level of education are found engaged in

agriculture and low paid occupations. Even the women with secondary education are mostly engaged in agriculture (56 per cent) while majority of men with similar education are employed in lower cadre occupations (39 per cent), although the concentration in ministerial occupations of women (33 per cent) is found comparatively higher than that of men (30 per cent). Accordingly the higher proportion of women (38 per cent) than men (30 per cent) with higher education are found engaged in managerial/supervisory occupations. However, in ministerial occupations the proportion of male workers (65 per cent) is slightly higher as compared to women (63 per cent).

✓ The SC/ST groups are found to start getting better advantage of education than the general caste groups, even at middle and secondary level of education, in-so-far-as a much higher proportion (42 per cent) of SC/ST workers with these levels of education are able to obtain clerical jobs than workers with other castes (24 per cent) with similar education. ✓ At the higher level of education workers from both the caste groups

are more or less equally concentrated in the managerial and ministerial jobs.

Further, at lower levels of education, workers from all income groups are more or less equally concentrated in the low status occupations. With secondary level of education, most workers get employment as employee status, but within that the proportion of low cadre jobs is higher among workers with low household incomes, but it steeply increases as we proceed to higher household income levels. Workers with higher education are mostly employed in ministerial and managerial categories but the proportion of former declines and that of the latter increases with increasing levels of households incomes.

7.5 Education and Earnings

Our analysis corroborates the common observations that the average earnings of both men and women rise with the increase in their educational levels; and, the earnings of women at different educational levels

are lower as compared to their male counterparts. The impact of different levels of education, is, however found to be different among men and women. Men gain more than women from the primary and middle level of education, but women score over men in the gains in earnings from secondary and higher levels of education. The male-female earning differentials widen as we proceed from no or below primary education to primary and middle level of education, but they tend to decline with secondary and higher levels of education.

The earnings of rural population are comparably less than their urban counterparts at different educational levels but these differentials tend to get reduced with increasing levels of education. And also, the incremental earnings due to higher education are higher for rural population than the urban population. Thus education, particularly higher education tends to equalise rural urban earning differentials.

The earnings of SC/ST workers are generally lower than the workers from other castes, but the increments in earnings at higher educational levels are

found higher in case of SC/ST than the general caste groups of workers. Thus despite an overall disparity of 37 per cent in favour of general castes the average earning level of both the groups are similar at higher educational level. ✓

Further we found that at similar levels of education the earning levels differ widely among the workers belonging to households with different per capita income levels. Average earnings increase with PCI levels at each educational levels, but incremental earning from each additional level of education is higher in case of low income groups than the relatively high income groups.

Examining the age-earning profiles of workers, it is observed that index of highest earnings at any time of working life, is much higher at 516 in the case of urban workers than of rural workers (330). The gains in earnings during their career are relatively higher for urban workers than of rural workers, particularly if they are with below primary and middle

level of education, but the highest life time earning of rural workers are higher than the urban workers in the group of those with primary and higher education.

The advantage in earnings due to education turns out to be higher for women than for men. The earnings of women with higher level of education are about five times higher than those of the women workers with no or less than primary education. The index of earnings of male workers with higher education with the lowest educational level as the base is 409. The indices of peak earning at any period of working life is noticed higher in favour of male workers than female workers at below middle levels of education while the benefit of earnings in favour of women are registered to be comparatively higher than their female counterparts at secondary and higher levels of education. Thus it seems that while the lower level of education only perpetuate the differentials that already exist between men and women and higher level of education tend to bring an equality among sexes.

7.6 Education and Economic Equality : An Overall Assessment

Let us now attempt an assessment of the overall impact of education on the economic opportunities of individuals in different groups of population. In final analysis the economic opportunities or benefits of education would manifest themselves in the income gains of the individuals. But in order that different groups of individuals derive these gains that flow from education, equally, they should have had similar access to education and similar probability of securing employment after having acquired a given level of education. To the extent, those otherwise socio-economically disadvantaged have better differential access to education and employment than the advantaged ones, education acts as an instrument of economic equality. But if the disadvantaged also tend to avail of educational opportunities to a smaller extent, and even after attaining education are relatively worse off in terms of access to jobs and particularly, better paid jobs or then tend to be paid lower even

in similar jobs, education would tend to perpetuate the existing economic inequalities.

We have attempted to measure the differences in opportunities to individuals from different groups — rural and urban, men and women, general and scheduled castes and different income groups, at each stage of the chain of the education — economic gains causation — educational facilities, their availment in terms of enrolment and retention in the educational system, employment market and earnings. The results are already summarised for each of those stages in preceding paragraphs. We attempt now to aggregate the differential disadvantages and advantages of different groups in order to get an overall measure of the equalising and unequalising effects of education. This exercise is, however, attempted without accounting for differences in educational facilities that may exist for different groups. Also it has not been attempted for different levels of education.

Between rural and urban areas, the pattern of differences at different stages were found against

the rural areas, though in the stage of securing employment rural areas had an edge over urban areas. The relative position of rural population, taking that of urban population as 100, at each stage stood as follows :

Table 7.1 : Disadvantage of Rural Population in Gains from Education

Stage	Rural Index (Urban=100)
I. Availment of Educational Facilities	51
a) enrolment	73
b) retention	29
II. Labour Market (Success in Securing Employment)	110
III. Earnings	49
Cumulative Index	27

In a broad sense it could be concluded that the economic gains of education of an average rural person are only 27 per cent of that of an average urban

person. To the extent, this gap is higher even than the average income differentials between rural and urban areas, education has proved an instrument of accentuating inequalities between the rural and urban areas.

On a similar basis, when we look at the differences between men and women we find that women are not very much disadvantaged in so far as the availment of

Table 7.2 : Disadvantage of Women in Gains from Education

Stage	Index (Male = 100)
I. Availment of Educational Facilities	94
a) enrolment	77
b) retention	110
II. Labour Market (Success in Securing Employment)	95
III. Earnings	55
Cumulative Index	49

educational facilities and securing employment is concerned, but seem to be highly disadvantaged in terms of earnings. It is for this reason that the economic gains of women from education are only around one-half of those derived by men.

The Scheduled Caste population has a slight advantage over other groups in securing employment and a disadvantage of about 15 per cent in earnings. With also about 15 percentage disadvantage in enrolment, they may not have been very much worse off, if they did not have a very high drop-out rate, and thus

Table 7.3 : Disadvantage of Scheduled Castes in Gains from Education

Stage	Index (General Castes = 100)
I. Availment of Educational Facilities	60
a) enrolment	73
b) retention	47
II. Labour Market (Success in Securing Employment)	107
III. Earnings	72
Cumulative Index	46

a significant (about 40%) disadvantage in the availment of educational facilities. As a cumulative result of these processes, the gains of scheduled castes from education are only 46 per cent of those derived by the people belonging to higher castes.

Inequalities in gains from education are found to be sharper among the individuals belonging to different economic status indicated by their per capita household income levels. The differences are seen to arise mainly because of the highly disadvantaged position of the low income groups in relation to their capacity to retain the enrolled persons from their households in the educational system and their access to jobs with relatively higher earnings. In respect of enrolment rates and access to employment opportunities of any kind, they are not so badly placed, in fact, the probability of getting into employment on entering the labour market is similar, if not higher, for the low income groups as in the case of the high income groups. Taking the figures for the highest PCI group (Rs. 6000 and above) as 100, the

Table 7.4 : Gains from Education by Income Groups

Indices with group 6 = 100						
Annual Per Capita Income Group	Stage I		Avera- ge	Stage		Cumula- tive Index
	(a)	(b)		II	III	
1. Below Rs.1500	48	5	27	103	18	5
2. Rs. 1500-2500	72	18	45	104	34	16
3. 2500-3500	84	44	64	102	56	37
4. 3500-4500	83	53	68	110	58	43
5. 4500-6000	97	92	95	105	82	82
6. 6000 and above	100	100	100	100	100	100

income gains from education of the lowest per capita income group (below Rs.1500) is only 5, but it increases consistently with every higher PCI group to 16, 37, 43 and 82 per cent of that obtained by the individuals with Rs.6000 or more per capita household income per annum.

Thus it appears that the overall impact of education on economic conditions has been inequitable. The combined effect of the differential access to

educational facilities both in terms of availability and capacity for enrolment and retention, differential access to employment opportunities and earnings differentials due to personal and socio-economic characteristics, is that rural based persons, women, scheduled castes and low income groups gain much smaller economic advantage from education than the urban based, men, highest castes and those with relatively higher incomes.

Two important caveats, however, need to be added to this rather negative conclusion on the role of education in equalising economic opportunities. First, whether education is acting as an instrument of equality or inequality would depend on whether the distribution of economic gains of education is less or more unequal than the initial distribution of income among different groups. If the share of economic gains from education, even though smaller in case of the disadvantaged groups, is more than their share in income and wealth, education would have acted towards equalising economic opportunities,

despite the inequitable pattern of distribution of its economic gains. Therefore, our findings do not necessarily imply on an 'inequalising' role of education. In fact, the more detailed analysis of various aspects of educational and labour market process earlier tends to suggest that expansion of education has engendered a reduction in inequality. This is particularly noticed in the case of SCs for whom a policy of protective discrimination in employment exists.

Secondly, different levels of education are found to have differential implications for equality. Education upto the middle level (eight years of schooling), howsoever important for universalisation of literacy and education, has little impact on economic equality, if at all, it is found to have an inequalising effect. But secondary and higher levels of education are definitely found to tilt the balance in favour of the socio-economically depressed groups like scheduled castes and women. It is, therefore, safe to conclude that while at the present stage of educational development, equalising role of education

may be insignificant, or even sometimes negative, education will certainly play an effective role in equalisation of economic opportunity in its next stage of development when higher levels of education became more accessible to a larger proportion of rural people, women, those belonging to scheduled castes and from lower income groups.

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QUESTIONNAIRE

Education, Employment and Earnings : A Study on the Role of Education in Equalisation of Economic Opportunity

1.1 Identifications

1.11 Name of the head of household _____

1.12 Caste _____

1.13 Name of Village _____

1.14 Family Occupation _____

a) Primary _____

b) Secondary _____

c) Others _____

1.2 Household Characteristics

Sl. No.	Name of Members	Relation with head	Sex	Age	Mari- tal status	Educa- tion (class passed)	Workers* status
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1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

* 1. Child, 2. Student, 3. Working, 4. Unemployed, 5. Housewife,
6. Retired/disabled, 7. Others (specify)

1.21 Source of Household Income (Rs.) Per Annum

1. Agricultural & Allied Agricultural Activities _____
2. Household Industry/shop/business _____
3. Self-employment _____
4. Wages and Salaries _____
5. Remittances _____
6. Others (specified) _____

1.22 Area of Agricultural Land (Acres)

Cultivated area under Kharif season (Acres) _____

Cultivated area under Rabi season (Acres) _____

Production value of Kharif crops (Rs.) _____

Charges paid for improved variety seeds (Rs.) _____

Charges paid for fertilisers (Rs.) _____

Charges paid for pesticides (Rs.) _____

Charges paid for hired labour (Rs.) _____

Irrigation charges (Rs.) _____

Land Tax/Revenue paid (Rs.) _____

Other cultivation costs (Rs.) _____

Total cultivation costs (Rs.) _____

2.1 Educational Characteristics of the Family Members

Name of the Family Members					
1	2	3	4	5	6

2.10 Primary Education

1. Age at enrolment
2. Location of school (R/U)
3. Distance from home (Km)
4. Mode of travel*
5. Place of residence**
6. Medium of instruction***
7. Type of school organization****
8. Years spent in primary education
9. In which class you could not success

2.11 Middle School

1. Age at entrance
2. Location of school (R/U)
3. Distance from home (Km)
4. Mode of travel
5. Place of residence
6. Medium of instruction
7. Type of school/organization
8. Years spent in passing middle education
9. In which class you could not success

	1	2	3	4	5	6
2.12 <u>High school</u>						
1. Age at entrance						
2. Location of school (R/U)						
3. Distance from home (Km)						
4. Mode of travel						
5. Place of residence						
6. Medium of instruction						
7. Type of school/orga- nisation						
8. Years spent in High school						
9. In which class you could not success						
2.13 <u>Intermediate</u>						
1. Age at entrance						
2. Location of school (R/U)						
3. Distance from home (Km)						
4. Mode of travel						
5. Place of residence						
6. Medium of instruction						

	1	2	3	4	5	6
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7. Type of school/
organisation
8. Years spent in Inter-
mediate
9. In which class you
could not success

2.14 Graduation

1. Age at entrance
 2. Location of college
(R/U)
 3. Distance from home
(Km)
 4. Mode of travel
 5. Place of residence
 6. Medium of instruction
 7. Type of school/
organisation
 8. Years spent in passing
 9. In which class you
could not success
-

	1	2	3	4	5	6
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2.15 Post Graduation

1. Age at entrance
2. Location of college
(R/U)
3. Distance from home
(Km)
4. Mode of travel
5. Place of residence
6. Medium of instruction
7. Type of school/
organisation
8. Years spent in passing
9. In which class you
could not success

2.16 Diploma/Degree/Techni- cal/Professional

1. Age at entrance
 2. Location of college
(R/U)
 3. Distance from home
(Km)
 4. Mode of travel
-

	1	2	3	4	5	6
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5. Place of residence
6. Medium of instruction
7. Type of school/
organisation
8. Years spent in passing
9. In which class you
could not success

2.17 Other Level of Education
(Specify)

1. Age at entrance
 2. Location of college/
school (R/U)
 3. Distance from home
(Km)
 4. Mode of travel
 5. Place of residence
 6. Medium of instruction
 7. Type of school/
organisation
 8. Years spent in passing
 9. In which class you
could not success
-

	1	2	3	4	5	6
2.18 Who was financing your study						
2.19 If you had to discontinue your studies what was the reason						
a) could not meet expenses						
b) was needed to work at home to supplement family income						
c) got job						
d) non-availability of educational facilities near village						
e) Did not like to continue						
f) did not get admission						
g) Others (specify)						
3.1 <u>Unemployment Characteristics</u>						
3.11 Did you trying for employment YES/NO						
3.12 Age at the time of leaving study						
3.13 Age at the time of searching job						

1	2	3	4	5	6
---	---	---	---	---	---

3.14 Where did you try for job

1. Within district
2. Outside the district
3. Within the State
4. Outside the State
5. Outside the country

3.15 Mode for searching job

1. Own efforts
2. Registered in employment exchange
3. Friends/relatives/family members
4. Job contractor
5. Others (specify)

3.16 How many time did you appear for interview

3.17 Are you still in search of job

3.18 What kind of job you desire

	1	2	3	4	5	6
--	---	---	---	---	---	---

3.19 Acceptable earnings (Rs.
per annum)

1. Within the district
2. Outside the district
3. Within the State
4. Outside the State
5. Outside the country

3.20 What will you do, if the
job is not available to
you?

4.1 Employment Characteristics

4.11 Waiting period after the
completion of education

4.12 Age at the time of sear-
ching job

4.13 Age at the time of finding
job

4.14 Place of work

- a) Within city/village
 - b) Living in the city/village
and working outside
 - c) Living outside
-

	1	2	3	4	5	6
4.15 If living outside						
a) Age at the time of migration						
b) Waiting period for first job						
c) Cost of maintenance (Rs. per year)						
d) Who was efforting costs						
4.16 Did you remain un-employed between various jobs						
4.17 Duration of unemployment						
4.18 Maintenance charges (Rs.)						
4.19 Who supported						
4.20 What did you during this period						
1. searching job						
2. went native home						
3. unemployed						
4. others (specify)						
4.21 Are you satisfied with your job						
YES/NO						

	1	2	3	4	5	6
4.22 If no, because of						
1. Inadequate earnings						
2. Non accordance with qualification						
3. far from home						
4. unsuitability of climate						
5. bad organisation						
6. others (specify)						
4.23 What kind of job you would prefer						
4.24 Salary/wages accepted						
4.25 Location of job						
4.26 Are you making any efforts						
4.27 Are you assured from any person						
4.28 Searching by own efforts						

5.1 Employment and Earning Characteristics

Name of Members	Place of work	Occupation	Activity	Status of employment	Friends/relatives	Employment	exchange/news papers	job contractors	Own efforts	Others (specify)	At beginning	At leaving	At the entry	At the leaving	Joining	Leaving	Reasons for leaving*	Period (years)
				ment s/p/t/c														

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* 1. Inadequate earnings; 2. Adequate work; 3. Not relative to qualification; 4. Non-suitability; 5. Personal unwillingness; 6. Others (specify)

Appendix I* Mode of Travel

1. On foot
2. Cycle/Scooter
3. City bus/Rickshaw/Tempo
4. Bullock cart/Horse cart
5. Others

**Place of Residence

1. Hostel
2. At home
3. With friends/relatives
4. Rented house
4. Others

*** Medium of Instruction

1. Hindi
2. English
3. Urdu
4. Others

**** School/Organisation

- | | |
|-------------------|-------------------|
| 1. Private | 3. Aided by Govt. |
| 2. Public (Govt.) | 4. Others |